

Body Image Disturbance and Emotional Regulation in Anorexia Nervosa

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in collaboration with
Modum Bad Research Institute

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*I remember one occasion, I was passing an open door and saw myself in the mirror, but actually, I didn't know that I saw myself.
I just saw the image of a person in the mirror and thought; "Oh gosh, she is thin!"
But then, when I understood that it was actually me, I didn't see me as thin anymore.
But then I actually saw a glimpse of it.*

*Sarah: I feel fat, but I know that fat isn't a feeling. I actually feel that disgusting feeling.
I feel that something is wrong with me, that something isn't working right.
I don't feel well, I feel restless, I feel like things are bad in some way.
Interviewer: So it's like your bad feelings become...
Sarah: To get fat! And that's why it's so difficult having been sick for so long,
I need to dig deep to bring up my emotions, because they are almost gone.
I either feel thin or I feel fat.*

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SUMMARY

Anorexia nervosa (AN) is a severe mental illness with a number of physical, psychological and social conditions. In spite of the severity of the disorder, we still lack empirical evidence to choose one treatment over another. The failure to show scientific evidence of effective treatment and prevention might rely on the complex psychological mechanisms involved in the disorder. To further improve our ability to help patients with AN, a better understanding of the specific mechanisms involved in the disorder is needed. A scarcely utilized source of knowledge in this respect is the patients themselves. On these ground, we explored two central psychological phenomena of AN as they are experienced and understood from the patients' own perspective, namely body image disturbance and emotional regulation.

The three studies included in this dissertation presents results from a collaborative research project - "Anorexia nervosa: The patients' experiences" - in which patients' experiences are utilized as a source of knowledge to understand different psychological aspects of AN. The study was conducted in two different phases and with different samples. First, a wide-angled and exploratory study on a sample of 18 patients was conducted. Next, a more focused study was conducted on a sample of 14 patients. In both phases, qualitative data was collected through semi-structured interviews. The total sample included 32 women aged 19-39 with current or previous AN (DSM-IV). Interviews were analyzed using Grounded Theory methods.

The first paper explores the concept of body image disturbance as it is experienced in the daily life of patients with AN. We identified four phenotypes of body image disturbance - "Integration", "Denial", "Dissociation", and "Delusion" - which differed according to whether the patients overestimated their own body size ("Subjective reality"), and whether they acknowledged the objective truth that they were underweight ("Objective reality"). The second paper explores which everyday situations and contexts AN patients themselves associate with self-perceived fluctuations in their body images. Four triggering contextual factors were identified; "Eating food", "Body awareness", "Emotional experiences" and "Interpersonal influences". The third paper explores how patients with AN manage the basic negative emotions sadness, anger, disgust and fear and how they relate these experiences to their eating disorder behaviours. Different emotions were managed by means of different eating disorder behaviours. Sadness was linked to body dissatisfaction, and was managed through restrictive eating and purging. Anger was avoided through restrictive eating and purging, and released through anorectic self control, self harm and exercising. Participants

avoided the feeling of disgust by avoidance of food and body focused situations. Fear was linked to fear of fatness and was managed through restrictive eating, purging and body checking.

In sum, the present dissertation suggests close relationships between emotional regulation and body image disturbance, and between specific emotions and different eating disorder behaviours. Knowledge about how patients understand these aspects of their disorder may be an important addition to further the more specific development of treatment programs for AN. The main findings and implications of this dissertation are:

- Body image disturbance may be conceptualized as a failure to integrate subjective experiences of one's own body appearance with an objective appraisal of the body.
- Severity of body image disturbances may range from integration to delusion.
- Body image disturbance may be regarded as a dynamic phenomenon that may vary across time and situations.
- Stability of body image disturbance may range from relatively stable to very unstable, uncertain and fluctuating body experiences.
- Body image disturbance seems to be triggered in a range of daily life contexts which share in common that they trigger affective arousal in the individual.
- There seems to be specific relationships between certain basic negative emotions and specific eating disorder behaviours.
- The concept of body dissatisfaction seems to be too non-specific to apply to the severity and complexity of patients' emotions towards their own body.

LIST OF PAPERS

PAPER I:

Espeset, E. M., Nordbø, R. H., Gulliksen, K. S., Skårderud, F., Geller, J., & Holte, A. (2011). The concept of body image disturbance in anorexia nervosa: an empirical inquiry utilizing patients' subjective experiences. *Eating Disorders: The Journal of Treatment and Prevention*, 19, 175-193.

PAPER II:

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PAPER III:

Espeset, E.M.S., Gulliksen, K.S., Nordbø, R.H., Skårderud, F., & Holte, A. The link between negative emotions and eating disorder behaviours in patients with anorexia nervosa. *(Submitted)*.

INTRODUCTION

Anorexia nervosa (AN) is most prevalent among women, aged 15 to 40 years. Children, young men and older women may also be affected. The prevalence of AN is 0.3% for young females (Hoek, 2006). Number of new cases per year is presumably 8/100,000 (Hoek, 2006). Studies indicate that the prevalence of AN has been relatively stable for the past 25 years (Hoek, 2006). Based on reliable prevalence rates, it is suggested that 2,700 Norwegian women aged 15 - 44 years suffer from AN, and that all of them need treatment (Rosenvinge & Gotestam, 2002). Among these, 280 need highly specialized services.

Although most patients show clinical improvement across time (Steinhausen, 2009; van Son, van, van Furth, Donker, & Hoek, 2010), continued symptoms such as low weight, over-concern with thinness and mental co-morbidity are usual, even after recovery (Sullivan, Bulik, Fear, & Pickering, 1998). In 20 % of the individuals the disorder proves intractable and unremitting (Steinhausen, 2002). A number of physical, psychological and social conditions are associated with the disorder. Frequent comorbide disorders are anxiety disorders, including generalised anxiety disorder, social phobia and obsessive-compulsive disorder (Kaye, Bulik, Thornton, Barbarich, & Masters, 2004; Pallister & Waller, 2008). Severe somatic consequences include cardiovascular complications, osteoporosis, organic central nervous changes, reduced height-growth and endocrine changes (Mitchell & Crow, 2006). AN is associated with social restrictions and poor social functioning (Zucker et al., 2007). The severity of the disorder is highlighted in the increased risk of premature death (Millar et al., 2005; Zipfel, Lowe, Reas, Deter, & Herzog, 2000) and suicide attempts (Bulik et al., 2008).

In spite of the severity of the disorder, we still lack empirical evidence to choose one treatment over another (Fairburn, 2005). Family involvement appears to be useful in adolescents with AN (Eisler, 2011; Eisler, Simic, Russell, & Dare, 2007; le, Lock, Loeb, & Nicholls, 2010). However, we do not know whether this is an effect of the family treatment or the fact that adolescents in general show a better prognosis (Fairburn, 2005). The absence of evidence-based treatments for older adolescents and adults with AN is one of the most serious issues in the field of eating disorders.

The failure to show scientific evidence of effective prevention and treatment might rely on the complex psychological mechanisms involved in AN. To further improve our ability to help patients with AN, a better understanding of the specific mechanisms involved in the disorder is needed. A scarcely utilized source of knowledge in this respect is the

patients themselves. On these grounds, we wanted to explore some central psychological aspects of AN as they are experienced and understood from the patients' own perspective. The three studies included in this dissertation are part of a collaborative research project - "Anorexia nervosa: Patients' experiences"- were different studies, as indicated by the project's title, utilize patients' subjective experiences as a source of knowledge to understand different psychological aspects of AN. In the present dissertation I will address three specific themes centred around two key phenomena in AN, namely body image disturbance and emotional regulation. This dissertation will explore the following themes:

- 1) The concept of body image disturbance as it appears in the daily life of patients who suffer from AN.
- 2) The everyday fluctuations of body images in patients with AN.
- 3) The relationship between emotional regulation and anorectic behaviour.

Anorexia nervosa

Classification of anorexia nervosa

The most common definition of AN is based upon DSM-IV (American Psychiatric Association, 1994). The DSM-IV criteria for AN are:

- A. Refusal to maintain body weight at or above a minimally normal weight for age and height (e.g. weight loss leading to maintenance of body weight less than 85 % of what expected; or failure to make expected weight gain during period of growth, leading to body weight of less than 85 % of what expected).
- B. Intense fear of gaining weight or becoming fat, even while being underweight.
- C. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight.
- D. In postmenarchal females, amenorrhea, i.e. the absence of at least three consecutive menstrual cycles. (A woman is considered to have amenorrhea if her periods occur only following hormone, e.g. oestrogen administration).

There are two subtypes of AN, these are:

Restricting type: During the current episode of AN, the person has not regularly engaged in binge-eating or purging behaviour (i.e. self-induced vomiting or the misuse of laxatives, diuretics or enemas).

Binge-eating/purging type: During the current episode of AN, the person has regularly engaged in binge-eating or purging behaviour (i.e. self-induced vomiting or the misuse of laxatives, diuretics or enemas).

Several authors have highlighted the overlap and similarities between different diagnostic groups and have suggested a transdiagnostic approach to the classification of the eating disorders (e.g. Fairburn & Bohn, 2005; Fairburn, Cooper, & Shafran, 2003). Fairburn & Harrison (2003) argue that the most compelling evidence for a transdiagnostic view comes from the longitudinal study of eating disorder diagnoses. Patients with AN frequently “cross over” to bulimia nervosa (BN) (Keel, Dorer, Franko, Jackson, & Herzog, 2005). Moreover, many patients with the binge-purge subtype of AN retrospectively report a history of BN (Tozzi, Sullivan, Fear, McKenzie, & Bulik, 2003). It has also been found that approximately 70 % of individuals with a non specified eating disorder (EDNOS) (American Psychiatric Association, 1994) develop either AN or BN over a 30-month follow-up (Milos, Spindler, Schnyder, & Fairburn, 2005). Recent research also indicates that as much as 60% of those with eating disorders do not meet DSM-IV diagnostic criteria for AN or BN (Fairburn & Bohn, 2005; Wade, Crosby, & Martin, 2006) and are thus classified as having EDNOS.

On the other hand, several authors argue that there is solid empirical evidence supporting the notion that AN should be considered a distinct and separate phenotype (Birmingham, Touyz, & Harbottle, 2009; Bulik et al., 2007; Clinton, Button, Norring, & Palmer, 2004; Collier & Treasure, 2004; van Son et al., 2010). The differentiation between AN and other eating disorders is based upon recent evidence including genetics, epidemiology, response to psychotropic drugs and neuroimaging (for a review, see for example Birmingham et al., 2009 or Bulik et al., 2007). Also Clinton and colleagues (2004), using cluster analyses of large samples of eating disorder patients, found support for the current differentiation between AN patients and other eating disorder patients. Schmidt and Treasure (2006) argue that there are two aspects which distinguish AN from the other eating disorder diagnosis. The first is that individuals with AN to an extreme degree value and defend their undernourished state. The authors postulate that denial seen in patients with AN goes beyond the lack of insight present in patients with psychosis or the denial typically found in patients with addictions. The second aspect is the highly visible nature of the disorder. AN can be distinguished from almost any other mental disorder in that it carries a “hard-to-ignore

message” to other people and may elicit emotions ranging from fear and despair to disapproval and disgust (Schmidt & Treasure, 2006). In line with this, the present dissertation is based upon a view of AN as a separate phenotype characterized by severe underweight.

Historical perspectives

Self-starvation has played an important role in the history of mankind as one of many ways of exerting self-control, purifying oneself and impressing other people. Early religious literature contains descriptions of what was probably AN. The most famous representative of such holy anorexia was Catherina Benincasa from Siena (Skårderud, 2008; Walker Bynum, 1987). In the 14th century she left her parents to oppose their choice of a husband for her, and she died after several years of self-inflicted starvations

Probably the earliest medical descriptions of AN was by Richard Merton in 1694. He described the occurrence of a “nervous consumption”. Two hundred years later, Sir William Gull in London and Charles Lasègue in Paris described the same condition and named it “anorexia nervosa” and “anorexie hysterique” respectively. According to both Gull and Lasègue, AN occurred predominantly in girls and women and was characterized by severe weight loss, amenorrhea, constipation, restlessness, and no evidence of underlying organic pathology. The interest in AN increased drastically when Hilde Bruch in 1962 proposed her descriptions of AN, emphasizing developmental factors and family dynamics. Hilde Bruch is probably the most influential figure in the field of eating disorders (Skårderud, 2009). The disorder evolved from a rare and little known clinical entity to a “fashionable” disorder of great interest to the general public (Vandereycken, 2002). However, many researchers and clinicians argue that AN is still a poorly understood and rather ‘mysterious’ condition.

Aetiology of anorexia nervosa

Despite a considerable amount of research on the aetiology of eating disorders, there is still no consensus regarding the causes of AN. It is, however, acknowledged that the causes are complex and multi-factorial, including both intrapersonal (individual psychological, biological and genetic factors) and interpersonal factors (familial, cultural and social) (Striegel-Moore & Bulik, 2007; Polivy & Herman, 2002). The important questions concern how the genetic, biological, psychological and interpersonal factors interact over time to predispose, trigger and maintain anorectic behaviour.

There is growing evidence that genetic and family factors contribute to the aetiology of AN (Bulik et al., 2007; Bulik & Tozzi, 2004; Klump & Gobrogge, 2005). Family studies

suggest that AN runs in families (Strober, Freeman, Lampert, Diamond, & Kaye, 2000). The relative risk for AN in family members of individuals with AN is 11.3 (Strober et al., 2000). Twin studies suggest moderate to high heritability of AN (Bulik et al., 2006). Furthermore, molecular genetics has demonstrated abnormalities of genes related to serotonin and dopamine receptors (for a review see Hatch et al., 2010). These alterations have been shown to be concentrated in the limbic system, a part of the brain that is important in the regulation of emotions.

Personality factors such as high levels of negative emotionality, obsessionality, neuroticism, harm avoidance, perfectionism and low self-esteem are also viewed as important aetiological factors (Bulik, Sullivan, Fear, & Pickering, 2000; Bulik et al., 2003; Halmi et al., 2003; Holliday, Uher, Landau, Collier, & Treasure, 2006). In a population-based cohort of Swedish twins, Bulik and colleagues found that neuroticism emerged as the only prospective predictor of AN (Bulik et al., 2006). Individuals with high neuroticism scores are characterized by emotional instability, low self-esteem, and feelings of anxiety, depression and guilt.

There is also increasing evidence that AN patients exhibit difficulties across a number of cognitive variables such as attention, speed of processing, memory and executive functioning (Hatch et al., 2010; Oldershaw et al., 2011; Tchanturia, Campbell, Morris, & Treasure, 2005). It is, however, less clear whether these deficits exist before the disorder develops, or if they are a result of malnutrition. One exception is the observed deficit in set-shifting which has been viewed as a phenotype of AN, independent of the effects of malnutrition (Holliday, Tchanturia, Landau, Collier, & Treasure, 2005; Roberts, Tchanturia, Stahl, Southgate, & Treasure, 2007).

Furthermore, there is also increasing documentation of disturbances in socio-emotional processing (Oldershaw et al., 2011). Some of these difficulties seem to be trait-like and are thus viewed as predisposing factors. One exception is the observed difficulties in Theory of Mind (ToM) which ameliorate following recovery (Oldershaw et al., 2011; Oldershaw, Hambrook, Tchanturia, Treasure, & Schmidt, 2010).

It is beyond the scope of this dissertation to provide a full review of research concerning the causes and maintenance factors of AN. Since the present studies are concerned with the role of body image disturbance and emotional regulation in AN, the following sections will present relevant theoretical contributions and research regarding these areas.

Theoretical perspectives

A range of theoretical perspectives have been developed to explain the central psychological mechanisms of AN. Most of these theoretical perspectives include both developmental and maintenance factors. In the following sections, a selection of theoretical perspectives will be presented.

Psychodynamic perspectives

Hilde Bruch

The psychoanalyst and pioneer in the field of eating disorders, Hilde Bruch, proposed a descriptive and theoretical model defining AN as a “self-disorder”. She emphasised that the core problem for these patients lies in a deficient sense of self and involves a wide range of deficits in conceptual developments, body image and awareness, and individuation (Taylor, Bagby, & Parker, 1997). Bruch (1962) observed that anorectic patients have “interoceptive confusion” which she defined as difficulties in accurately perceiving stimuli arising in their bodies, such as hunger and satiety, but also fatigue and weakness as the physiological signs of malnutrition (Skårderud, 2009). In addition, she observed that patients with AN experience their emotions in bewildering ways and are often unable to describe them. The lack of awareness of inner experiences and failure to rely on feelings, thoughts and bodily sensations to guide behaviour, may contribute to an overwhelming sense of ineffectiveness and an overall lack of awareness of living one’s own life (Bruch 1962; 1973). To compensate for these deficits, the patients “struggle for control, for a sense of identity, competence, and effectiveness” (Bruch, 1973)(p.24). Bruch described the core psychopathology of AN as a disturbance in body image and interoceptive awareness. She also postulated a direct link between these two; the patients’ inability to perceive their emotions leads to body image disturbance. The disturbance in body image was defined as a perceptual disturbance of delusional properties and Bruch argued that the patients were close to having impaired reality testing. With respect to psychotherapy, Bruch challenged the established psychodynamic interpretative approach and emphasised curiosity and a not-knowing stance. The “naïve” stance means that therapists listen to the patients and stimulate curiosity and sensitivity towards oneself. Bruch suggests that the most important therapeutic task is to “help the anorectic patient in her search for autonomy and self-directed identity by evoking awareness of impulses, feelings and needs that originate within herself”.

Self-psychological theories

In contemporary psychodynamic models, eating disorders are understood as attempts to re-establish a form of self-regulation of unpleasant emotional states. According to self-psychological theories (Goodsit, 1997), AN is described as a severe deficit in psychological self-organization and self-regulation. The absence of reliable internal self-regulation results in a feeling of inadequacy, ineffectiveness and a lack of control. Eating disorders are therefore seen as “attempts to drown out these anguished feelings by frantic self-stimulatory activities. This is the common denominator to such behaviours as starvation, bingeing, vomiting and hyperactivity. The symptoms are misguided attempts to organize affects and internal states meaningfully” (p.59) (Goodsit, 1997).

Mentalisation theory

Mentalisation is defined as the ability to understand feelings, cognitions, intentions and meanings in oneself and in others (Bateman & Fonagy, 2006). Fonagy and colleagues have presented a social biofeedback theory of parental affect-mirroring (Fonagy, Gergely, Jurist, & Target, 2002). They argue that the capacity to understand interpersonal behaviour in terms of mental states is a key determinant of self-organisation and affect regulation, and that this capacity is acquired in the context of early attachment. The ideas of the Fonagy group can help us to understand how the internal process of affect regulation can break down, leaving an individual without the means of appropriately identifying and acting on internal feeling-states. The mentalisation model is based upon developmental psychology and contemporary psychoanalysis, and integrates recent developments within neuroscience. When it comes to eating disorders, the concept of mentalisation is used both with regard to deficits in the understanding of other people's mind, one's own mind and also minding one's own body (Skårderud & Fonagy, in press). The anorectic symptoms are viewed as means to maintain cohesion and stability of a tenuous sense of self (Skårderud, 2009). The concept of body image distortion is understood as a combination of psychic equivalence – hyper-embodied states where inner life is experienced too real here-and-now in a concretistic way - and pretend mode – dys-embodied states with too unreal disconnection both from affects and somatic stimuli. The concept of mentalisation is also suggested to explain the finding that the patients' body images fluctuate with different contexts (Skårderud & Fonagy, in press). That is, the patients experience themselves as fat when they are affectively aroused.

Neuroscience

Several conceptual models have been developed that try to explain how the observed neuro-cognitive and socio-cognitive difficulties contribute in the development and maintenance of AN (e.g. Hatch et al., 2010; Schmidt & Treasure, 2006; Southgate, Tchanturia, & Treasure, 2005).

Hatch and colleagues (2010) have recently proposed an integrative neuroscience model in which AN is conceptualized as a disorder of emotion with associated effects on feeling, thinking and behaviour. Their model is based upon an integrative neuroscience framework of brain organization (i.e. the INTEGRATE framework) (Williams et al., 2008). According to the INTEGRATE model, the core principle of motivation for humans is to minimize danger and maximize reward. The INTEGRATE framework proposes a dynamical continuum of brain organization in which emotion, thinking/feeling and self-regulation are driven along a continuum of time. Emotion is defined as the adaptive action tendencies that are mobilized by significant emotion cues, and are triggered automatically without consciousness. The definition of emotion is consistent with the concept of “primary emotions”. Thinking and feeling involve subjective experiences and conscious awareness of one’s thoughts and emotions. Self-regulation is defined as the management of emotion, thinking and feeling to minimize danger and maximize reward over time. Hatch and colleagues propose that vulnerability to AN is characterized by a shift in the normal processing of danger-cues. More specifically, they suggest that vulnerability to AN is a hyper-sensitivity in the early reactions to negative emotion cues that occur without awareness. This is further coupled with a loss of normal awareness of emotional experiences reflected in high scores of alexithymia and poor identification of emotion. According to Hatch and colleagues, patients with AN use food restrictions as a means to regulate emotions to minimize danger and maximize reward over time. The restriction of food intake is also regarded as a means to numb the emotion hyper-sensitivity. The avoidance of food is viewed as a way of minimizing danger (e.g. avoiding one’s negative emotions). Following their understanding of AN as a non-conscious emotion disturbance, Hatch and colleagues point to the difficulties with many cognitive or thinking based treatments for eating disorders that presuppose conscious awareness of these processes. They highlight the importance of further developing emotion-based psychological and pharmacological treatment strategies.

The functional role of anorexia nervosa

The American psychologist Kelly Vitousek (previously named Bemis) has together with Linda S. Ewald proposed a theoretical model of AN in which cognitive and psychodynamic elements are combined (Vitousek & Ewald, 1993). While traditional cognitive theories highlight the automaticity of the information-processing errors derived from schemas, Vitousek and Ewald suggest that eating disorders differ from most other psychiatric disorders in that the patients are motivated for or experience a function of symptomatic behaviour. They propose that anorectic symptoms are maintained by a characteristic set of overvalued ideas about the personal implications of body shape and weight. The core cognitive disturbance of eating disorders is schemas of the self as “Unworthy”, “Imperfect” and “Overwhelmed”. These schemas give rise to the belief that the solution is thinness and weight loss, which are therefore pursued relentlessly. According to Vitousek and colleagues, the anorectic beliefs are reinforced in different ways. First, they are positively reinforced by feelings of success, achievement and control that result from successful dietary restriction. Second, they are negatively reinforced by avoidance of becoming fat. Third, self-worth is defined in terms of shape and weight which gives rise to a series of cognitive biases that maintain the anorectic beliefs and behaviour. Fourth, the effect of starvation contributes to the maintenance of the eating disorder by increasing subsidiary beliefs and behaviours such as characteristic information-processing errors, concrete thinking and starvation-induced physiological changes which all serve to maintain and reinforce the anorectic behaviour.

More recently, Schmidt and Treasure (2006) have proposed a maintenance model of restrictive AN. Different from many previous theories which focus on weight and shape concerns as the central psychopathology of eating disorders (e.g. Fairburn et al., 2003), Schmidt and Treasure describe the essence of AN as “motivated eating restraint”. They argue that weight and shape concern is only one by many possible motivations for restraint eating. Schmidt and Treasure postulate four different maintenance factors of restrictive AN. First, the model suggests that personality traits such as perfectionism, cognitive rigidity, obsessive-compulsive disorder and obsessive-compulsive personality traits may be both a risk factor for AN and a factor maintaining these symptoms. Second, the authors highlight the role of experiential avoidance in AN. They suggest that the characteristic avoidance of emotions and inter-personal relationships are both risk factors and maintaining factors of AN. Third, Schmidt and Treasure suggest that the beliefs patients have about their illness, in particular,

positive beliefs about the function of their anorectic symptoms, may play an important role in the maintenance of AN. Fourth, the authors suggest that the emotional response from close others may be a causal maintaining factor in AN. In line with recent developments within cognitive-affective models, Schmidt and Treasure suggest that the symptoms of AN serve as means to avoid or numb difficult emotions. The model does not account for the role of body image disturbance in the pathology of AN.

Cognitive behaviour models

Fairburn and colleagues developed a treatment model for patients with AN in which the core psychology of AN is conceptualized as a need for self-control that becomes focused on controlling eating, shape and weight (Fairburn, Shafran, & Cooper, 1999). In this model it is suggested that dietary restriction is maintained in three different ways. First, dietary restriction is maintained by positive reinforcement from an increase in feelings of self-control and self-worth. Second, the physiological signs of hunger and satiety are interpreted as a threat to perceived control over eating. For example feeling full after a small amount of food is hypothesised to lead to the interpretation “I’ve eaten too much” and perceived as a failure to control over-eating. The third mechanism concerns the over-importance of shape and weight. The model suggests that treatment should focus on weight and shape concerns through methods as self-monitoring food-intake and cognitions related to eating, weight and shape.

More recently, Fairburn and colleagues have developed a transdiagnostic model of eating disorders (Fairburn et al., 2003). The key premise of this model is that all major eating disorders share core types of psychopathology that help maintain the eating disorder behaviour; these include over-evaluation of shape and weight and the control of eating. Fairburn and colleagues also suggest additional maintenance mechanisms such as clinical perfectionism, low self-esteem, mood intolerance and interpersonal difficulties. In line with recent developments within cognitive theories, their extended version of CBT includes a module on emotional regulation to be applied when there are clear difficulties in mood intolerance that are related to the individual’s eating cognitions and behaviours.

Cognitive-emotional models

Cognitive perspectives of eating disorders have shown significant developments within the last 10 years. While the first generation cognitive models were broadly concerned with the link between cognitions and behaviour (e.g. Fairburn et al., 1999), the second generation

models have postulated that the cognitive-affective dimension is of central importance in the development and maintenance of eating disorders (e.g. Cooper, Wells, & Todd, 2004; Corstorphine, 2006). These models have been developed to explain the function of eating disorder behaviours as a means to avoid or suppress aversive emotions.

Corstorphine (2006) has proposed a cognitive-emotional-behavioural model of eating disorders (CEBT-ED) which is broadly based upon Dialectical Behavioural Therapy (DBT) (Linehan, 1993). In line with DBT, it is hypothesised that the origin of the observed difficulties in emotional regulation is growing up in an environment that is perceived to be invalidating. The invalidating environment is defined as an environment in which communication of emotion is ignored or responded to negatively. As a result of growing up in such environment, the individual develops beliefs that certain emotions are “bad”, “dangerous” and should not be experienced. Corstorphine makes a distinction between primary emotions and secondary emotions. Primary emotions are appropriate responses to the environment and are adaptive to the situation (e.g. motivating the individual to change the situation). When the individual experience particular emotions as unacceptable, this will result in failure to act in an adaptive way and the triggering of secondary emotions (e.g. guilt about feeling angry). Corstorphine suggests that much emotional distress in eating disorders is a result of such secondary emotional states (e.g. guilt or shame). In line with other cognitive-affective models, eating disorder behaviours such as food restriction and bingeing-purging are used to distance or prevent emotions from occurring. Thus a primary aim of therapy is to help individuals tolerate their own emotional reactions and reduce the function of the associated impulsive behaviours. Corstorphine’s model does not consider the role of body image disturbance in eating disorders.

Fox and Power (2009) have recently developed a theoretical model of eating disorders (i.e. SPAARS-ED) that incorporates contemporary theories of emotion and recent research findings within the field of eating disorders. The model is based upon the Schematic Propositional Analogical Associative Representation System (i.e. SPAARS) (Power & Dalgleish, 2008). According to the SPAARS-ED model, each basic emotion (i.e. sadness, happiness, anger, fear and disgust) is linked to an appraisal of an event that signals an individual into action. For example, anger can be understood as an emotional response to the blocking of goals, while disgust leaves the individual with a strong urge to keep distance between the self and the object of disgust. A key point in the SPAARS-ED model is that the basic emotions may be triggered by different “routes”. The first is an appraisal route in which emotions are triggered through schema, while the second is an associative route that works

without conscious awareness. Different from other cognitive models of eating disorders, Fox and Power suggest that emotions may be triggered without any conscious processing or appraisal of any event. Another key point according to the SPAARS-ED model is that emotions may develop in a modularized manner. For example, when a particular emotion such as anger, as a result of invalidating childhood experiences, becomes regarded as unacceptable or bad for the self, this emotion may become ego-dystonic and dissociated from the self. A third key point in the SPAARS-ED model is that different basic emotions can become linked together and have either a facilitating or inhibitory function to one another. The feeling of disgust is suggested to play a central role in the development and maintenance of eating disorders and is suggested to explain the marked presence of body dissatisfaction in almost all cases of eating disorders. Disgust is described as an over-learned and automatic emotion following an associative emotion route. The authors suggest that disgust may be linked to other emotions, and particularly to anger, and may be used to inhibit other more painful emotions (i.e. sadness, anger and fear) from being experienced or expressed.

Body and emotions in anorexia nervosa

As the previous theoretical review shows, there is an interesting convergence in the theoretical understandings of eating disorders, meeting around the role of emotional regulation and body image disturbance. First, there has been a move away from beliefs about weight and shape and the focus on behavioural change (e.g. Fairburn et al., 2003), to the function of eating disorder symptoms as a means to regulate negative affect (e.g. Corstorphine, 2006; Schmidt & Treasure, 2006). Current cognitive, psychodynamic and neuroscience models propose that anorectic behaviour serve as a means to regulate or avoid negative affect. However, it is not always clear why the eating disorder symptoms are chosen as emotion regulation strategies instead of other behaviours such as for example self-harm. Some models more specifically describe the function of eating disorder symptoms, such as restrictive eating being described as a means to numb negative emotions (Hatch et al., 2010; Schmidt & Treasure, 2006). The SPAARS-ED model adds to the previous theoretical perspectives by suggesting that specific basic emotions such as anger and disgust may contribute to eating disorder behaviour. Second, there has been a move away from the emphasis on cognitive and conscious processing (e.g. schema driven processes) of emotions to the emphasis on processes that appear without any consciousness awareness or appraisal of any event. One example is the Integrate neuroscience model of Hatch and colleagues, in which AN is conceptualized as a disturbance in non-conscious processing of emotions (Hatch

et al., 2010) with subsequent consequences on conscious processes as thinking, feeling and self-regulation. Another example is the SPAARS-ED model in which non-conscious and automatic processing of basic emotions as anger and disgust is highlighted. Together, these perspectives point to the difficulties with many cognitive and behavioural based treatments of eating disorders that presuppose awareness of these processes. Third, there is increasing agreement between current psychodynamic and cognitive perspectives that the emotional difficulties seen in patients with AN could be related to childhood experiences and attachment, described as insufficient affect-mirroring (Fonagy et al., 2002) or invalidating environments (Corstorphine, 2006). A last point regards the role of body image disturbance in AN. Hilde Bruch postulated a direct link between interoceptive awareness and body image disturbance; the patients' inability to perceive their emotions leads to body image disturbance. Although body image disturbance is still viewed as a core psychopathology in AN, only the mentalisation theory and the SPAARS-ED model try to explain the psychological processes involved in body image distortion. In the mentalisation model, body image distortion is linked to deficits in the capacity to mentalise one's emotional states. Fox and colleagues link body image disturbance more specifically to the processing of different basic emotions. They suggest that body dissatisfaction may be understood as the basic emotion disgust.

The concept of body image disturbance

Body image disturbance is defined as a "disturbance in the way in which one's body weight or shape is experienced" (American Psychiatric Association, 1994). The contemporary understanding of body image is that it is a complex and multidimensional construct with perceptual, affective, cognitive-evaluative and behavioural components (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). Disturbance may appear in any of these components and lead to different types of body image disturbances. Many researchers differentiate between two components of body image disturbance (Cash & Deagle, 1997); the perceptual component and the cognitive-evaluative component. The perceptual component refers to the phenomenon that AN patients tend to overestimate their body size and shape compared to healthy controls (e.g. "body size estimation") (Cash & Deagle, 1997; Farrell, Lee, & Shafran, 2005; Skrzypek, Wehmeier, & Remschmidt, 2001; Smeets, Klugkist, Rooden, Anema, & Postma, 2009). The cognitive-evaluative component refers to patients' negative thoughts and feelings towards their body (e.g. "body dissatisfaction") as well as their

concerns regarding their shape and weight (Cash & Deagle, 1997; Geller et al., 1998; Vocks, Legenbauer, Wachter, Wucherer, & Kosfelder, 2007).

Historically, the perceptual component has received the most comprehensive attention. In research on body size estimation, experimental methods were used to measure the degree to which patients overestimate the size of their bodies (Cash & Deagle, 1997; Farrell et al., 2005; Hennighausen, Enkelmann, Wewetzer, & Remschmidt, 1999; Skrzypek et al., 2001). Results from these studies suggest that AN patients overestimate their body size as compared to healthy controls (Cash & Deagle, 1997; Farrell et al., 2005). It is, however, still unclear how these findings should be interpreted. While the traditional assumption underlying body size estimation tasks is that they assess the patients' visual image of their body (e.g. perceptual disturbance), inconsistent results using these methodologies, as well as conceptual and methodological problems have led to alternative explanations (Cash & Deagle, 1997; Farrell et al., 2005; Smeets, 1997; Smeets, Smit, Panhuysen, & Ingleby, 1997; Stewart & Williamson, 2004). For instance, cognitive behaviour theories (Cash, 2002a; Williamson, Stewart, White, & York-Crowe, 2002) suggest that the body size estimation tasks assess patients' feelings or evaluations of their body's appearance. Accordingly, the overestimation is defined as a cognitive-emotional phenomenon, and not as a sign of an underlying perceptual disturbance. On the other hand, recent developments within visual imagery (Smeets et al., 2009) and functional neuroanatomy (Uher et al., 2005) provide new insights into the understanding of these phenomena. Uher and colleagues (2005) found that the brain activity related to body shape processing were relative underactive in women with eating disorders compared to healthy controls. The authors suggest that these patterns may underlie the failure to represent one's body in a realistic way.

Body size estimation studies have also been criticized because they have yielded few therapeutic or clinical applications (Farrell et al., 2005; Farrell, Shafran, & Lee, 2006; Hsu & Sobkiewicz, 1991). Although more ecologically valid methods have been developed to address these concerns (Farrell, Shafran, & Fairburn, 2003; Probst, Vandereycken, & Van Coppenolle, 1997; Shafran & Fairburn, 2002), body size estimation studies are still typically carried out as single-assessments in laboratories. That is, body image disturbance is considered as a stable trait that can be studied outside the context in which it occurs. There is, however, growing evidence that body experiences fluctuate with varying contexts (Cash, Fleming, Alindogan, Steadman, & Whitehead, 2002; Cash, 2002b; Melnyk, Cash, & Janda, 2004) (Rudiger, Cash, Roehrig, & Thompson, 2007).

Several experimental studies have shown that body image is not a stable phenomenon, but rather seems to be influenced by different internal and external factors (Farrell et al., 2005). Most of these studies have been conducted in laboratories and have measured the effect of different exposure factors on healthy women's satisfaction with or perception of their own appearance. Women have been found to be more dissatisfied with their own body in social and body focused situations (Haimovitz, Lansky, & O'Reilly, 1993; Tiggemann, 2001) and when they are exposed to thin-idealized bodies (Waller & Barnes, 2002). The influence of eating and hunger has been the subject of a few studies in which the results suggest that body image is affected by recent food intake (Vocks, Legenbauer, & Heil, 2007) or perceived calorie intake (Thompson, Coovert, Pasman, & Robb, 1993). Other studies have shown that simply thinking about eating fattening, high-caloric food may induce body dissatisfaction (Fett, Lattimore, Roefs, Geschwind, & Jansen, 2009; Geschwind, Roefs, Lattimore, Fett, & Jansen, 2008) and feelings of guilt, fatness and perceived weight gain in restrained eaters (Coelho, Carter, McFarlane, & Polivy, 2008). Finally, negative affect has been shown to influence body size perception (Baker, Williamson, & Sylve, 1995; Plies & Florin, 1992; Taylor & Cooper, 1992) and to make women more susceptible to feelings of guilt, fatness and perceived weight gain (Coelho, Roefs, & Jansen, 2010).

Yet, the influence of real-life day-to-day contexts on AN patients' body image experiences has been largely unexplored in previous research. It is, however, assumed that women with eating pathology are more susceptible to body image shifts in response to various body image threats and challenges in their daily life (Jakatdar, Cash, & Engle, 2006). Research suggests that individuals with eating disorders show an attentional bias for body-related information in their environment (Lee & Shafran, 2004; Smith & Rieger, 2006; Smeets, Roefs, van, & Jansen, 2008; Smeets et al., 2011), which again makes them susceptible to body image fluctuations in a range of daily life contexts. Also, the influence of different contexts on body image is found to be mediated by self-activation (Smeets, Jansen, Vossen, Ruf, & Roefs, 2010). That is, women who are more aware of themselves are also more susceptible to body image fluctuations in daily life contexts. Further research is needed to determine the particular contexts that might trigger such fluctuations in women with eating disorders.

Although body image and its disturbance in patients with AN has been the subject of a large number of studies, there is still no consensus about the specific nature of the problem (Cash & Deagle, 1997; Farrell et al., 2005; Smeets et al., 2009). A first challenge to the scientific study of body image disturbance is to develop an empirically grounded concept that

is both clinically and ecologically valid. In order to do this, research should explore the concept of body image disturbance contextualized, in patients' daily lives (Melnik et al., 2004; Rudiger et al., 2007). A second challenge is that previous studies have conceptualized body image disturbance as a relatively stable and trait-like characteristic of the patient. They have measured how patients with AN typically perceive, think or feel about their own body. More knowledge is needed to find out how body images fluctuate within patients with AN.

Emotional regulation

Emotional regulation is viewed as a complex process that involves various dimensions such as awareness and understanding of emotions, acceptance of emotions, ability to engage in goal-directed behaviour and to refrain from impulsive behaviour when experiencing negative emotions and the ability to access emotion regulation strategies perceived as effective (Gratz & Roemer, 2004). The absence of any or all of these components indicates the presence of difficulties in emotional regulation. To a great extent, previous studies have focused on the lack of emotional awareness and understanding in this patient group, such as the large body of research that has explored rates of alexithymia in AN (Bydlowski et al., 2005; Kessler, Schwarze, Filipic, Traue, & von Wietersheim, 2006; Montebanocci et al., 2006; Taylor, Parker, Bagby, & Bourke, 1996). In the present dissertation, the main focus is on the link between negative affective states and eating disorder behaviour.

Several theoretical models for eating disorders suggest that eating disorder behaviour serves as a means to regulate negative affect (Cooper et al., 2004; Fox & Power, 2009; Schmidt & Treasure, 2006; Skårderud & Fonagy, in press). Binge-eating has been regarded as a way to escape from aversive self-awareness (Heatherton & Baumeister, 1991) or block painful emotions (Cooper et al., 2004). Recently, there has been increasing attention towards the role of AN symptoms as a means to avoid or regulate negative affect. For example, Schmidt and Treasure (2006) suggest that the exclusive mental focus on food and eating is associated with emotions becoming less salient and the patients describing themselves as emotionally "numb" (p.347).

The function of AN symptoms as a means to manage or avoid difficult emotions are also supported by studies which assess AN patients' view of their own symptoms (Nordbø, Espeset, Gulliksen, Skårderud, & Holte, 2006; Serpell, Treasure, Teasdale, & Sullivan, 1999; Cockell, Geller, & Linden, 2003; Kyriacou, Easter, & Tchanturia, 2009). For example, self starvation is regarded as a means to help the patients to avoid or control their aversive

emotions (Nordbø et al, 2006). Corstorphine and colleagues (Corstorphine, Mountford, Tomlinson, Waller, & Meyer, 2007) found that women with eating disorders, compared to healthy women, were significantly more likely to report avoidance of situations that might provoke emotional states. In a qualitative study, Kyriacou and colleagues (2009) investigated the role of emotions in AN by comparing the views of patients, parents and clinicians. They found that patients reported considerable emotional difficulties in different areas as recognition, understanding, expression and tolerance of emotions.

There is also increasing evidence that AN patients have difficulties in processing specific negative emotions. Anger appears to be a highly salient emotion in AN. In a study of Geller and colleagues (Geller, Cockell, Hewitt, Goldner, & Flett, 2000), patients with AN inhibited their anger, directed their anger inwardly, as opposed to outwardly, and had higher Silencing the Self scores than the control group. Individuals with eating disorders are also found to have higher levels of state anger and simultaneously higher level of anger suppression than controls (Waller et al., 2003). Furthermore, there is growing consensus that disgust is an important emotion in eating-disordered women (Davey, Buckland, Tantow, & Dallos, 1998; Troop, Murphy, Bramon, & Treasure, 2000; Troop, Treasure, & Serpell, 2002). In the SPAARS-ED model, Fox and Power (2009) suggest that the emotion of anger and disgust are of central importance in the psychopathology of eating disorders. A key point in the SPAARS-ED model is that when a particular emotion such as anger is viewed as unacceptable or bad for the self, this emotion may develop in a modularized manner and may become dissociated from the self. Fox and Power suggest a direct link between anger and disgust in that the emotion of disgust may be used to inhibit the emotion of anger.

In a recent study, Fox (2009) explored anorectic patients' perception and management of different basic emotions (i.e. happiness, sadness, anger, disgust and fear). Fox found that the participants related their anorectic behaviour specifically to the emotion of anger and to a lesser degree to sadness. The emotion anger was described as "toxic" and it appeared to play a trigger role in the rise of eating disorder symptoms. The participants explained that they used their eating disorder to avoid or suppress their anger. The emotion of sadness was described as shaming and was associated with "weakness". The participants explained that they inhibited their sadness to protect other people and close relationships.

Despite growing attention to the relationship between emotional regulation and eating disorder behaviour in general, the specific processes involved in patients with AN are less known. The study of Fox (2009) is the only study we have found that explores how the patients themselves experience and understand these processes The present dissertation was

conducted to further explore how patients with AN manage their basic emotions and how they link these experiences to their eating disorder behaviours. Since managing negative emotions appears to be particularly challenging, we restricted our analysis to explore how patients manage the basic aversive emotions of sadness, anger, disgust and fear.

Research objectives

The dissertation consists of three papers with the following research questions:

- The aim of paper 1 was to explore the concept of body image disturbance as it appears in the daily life of patients who suffer from AN
- The aim of paper 2 was to explore which everyday contexts and situations patients with AN associate with self-perceived fluctuations in their body images
- The aim of paper 3 was to explore how patients with AN manage the negative emotions sadness, anger, disgust and fear and how they link these experiences to their anorectic behaviour.

MATERIAL AND METHODS

Research design

The failure to show scientific evidence of effective prevention and treatment might indicate that a better understanding of AN is needed. A scarcely utilized source of knowledge in this respect is the patients themselves. The aim of the present dissertation is, therefore, to explore some central psychological aspects of AN as they are experienced and understood from the patients' own perspective. Knowledge about the patients' experiences may have at least two different rationales. First, knowledge about how patients experience their condition may be useful in order to establish treatment alliances with the patients, taking the patients' experiences as the point of departure for motivational work and therapy. Second, knowledge about the patients' experiences may be regarded as an alternative source of knowledge to understand the cognitive, emotional and interpersonal mechanisms that may be involved both in the development, maintenance and remission from AN. There are of course limitations to both these rationales. First, we do not know for sure that taking the patients' experiences as a point of departure is always the best way to establish sustainable working alliances. Second, the patients' explanations and beliefs about what may drive their anorectic behaviour are not necessarily identical to the real mechanisms behind the pathological behaviour. On the other hand, we cannot exclude that patients' knowledge about themselves, when systematized in a scientific study, may help us to get on a better track in understanding the mechanisms underlying AN.

The first objective of this dissertation was therefore to gain knowledge about how these psychological aspects are experienced from the patients' own perspective. Accordingly, all studies included in this dissertation were founded on a Patient as Expert perspective, i.e. the patients that participated in the study were regarded as experts on their own experiences. We aimed at providing descriptions as close to the participants' subjective experiences (authentic) as possible; not evidence of facts as seen from another observer's point of view or objective causality. The role of the researcher in such type of study is to help the patients to explore, reflect upon and precisely verbalise their own experiences. The second objective of the present study was to develop empirically grounded theoretical frameworks for how we may understand these central psychological aspects of AN. For that purpose, Grounded Theory techniques were used in the gathering and analysis of data (Charmaz, 2006; Corbin & Strauss, 2008). Grounded Theory consists of systematic inductive guidelines for gathering,

synthesizing, analyzing and conceptualizing qualitative data to develop higher order constructs and theoretical understandings. These include theoretical sampling, constant comparative methods, open coding, focused coding and axial coding.

In the following sections, I will first present a general background for the use of Grounded Theory methods and then introduce some specific methodological considerations regarding the research project presented in this dissertation.

Grounded Theory methods

Grounded Theory was first developed by the sociologists Barney G. Glaser and Anselm L. Strauss (Glaser & Strauss, 1967). Their version reflected two different and contrasting epistemological traditions within sociology; Glaser's background from quantitative research and training at Columbia University (Lazarsfeld & Rosenberg, 1955; Merton, 1957) and Strauss's background from the pragmatist philosophical tradition at the University of Chicago (Blumer, 1969; Mead, 1934). Glaser and Strauss were inspired by positivism in that they defined systematic techniques for studying the external world, and inspired by pragmatism in their focus on how individuals constructed their experiences, meanings and intensions. While previous qualitative methods had been based on implicit procedures, Glaser and Strauss developed explicit and written guidelines for conducting qualitative research. Their book - "The discovery of Grounded Theory" - became a major force in the "qualitative revolution" (Denzin & Lincoln, 1994) and provided a powerful argument that legitimized qualitative research as a credible methodological approach in its own right rather than simply being a precursor for developing quantitative instruments (Charmaz, 2006)

Since their original publication in 1967, Glaser and Strauss have developed Grounded Theory in two divergent directions. Glaser (1998; 2011) has remained consistent with the early definitions of Grounded Theory and articulates crucial aspects of an objectivist position (Charmaz, 2006). Objectivist Grounded Theory assumes that data represent objective facts about a knowable world and that the role of the researchers is to find data and "discover" theory from them. They also argue for a stricter adherence to Grounded Theory steps than would constructivists. With regard to the research process, an objectivist Grounded Theory focuses on neutrality in the research process, and assumes that the researcher can be viewed as separated and distant from the research participants and their realities.

Strauss and his co-author Juliet M. Corbin (Strauss & Corbin, 1990; Strauss & Corbin, 1998) have gradually revised and developed their version of Grounded Theory. Their main inspiration has been from the Chicago Interactionism and the philosophy of Pragmatism

(Blumer, 1969; Mead, 1934). The last revision of their book “Basic of qualitative research” (Corbin & Strauss, 2008) is written of Corbin after the death of Strauss in 1996. Corbin explains that the last revision is influenced by the recent postmodernist and postconstructivist developments within qualitative methodology, while still retaining most of Strauss’s basic approach to doing analysis. According to Corbin, the most important revision is the acknowledgement that multiple interpretations can be constructed from one set of data. From this assumption it follows that concepts and theories are “constructed by researchers out of stories that are constructed by participants who try to explain and make sense of their personal experience” (p. 11). Since researchers construct knowledge based on these multiple constructions, it also follows that knowledge is constantly evolving in light of new experience. Another change that has moved Corbin and Strauss’ approach farther away from the objectivist tradition, regards the relation between the researcher and the research-process or analysis. It is assumed that the researcher can not be separated from the research process.

Charmaz (2000; 2006) has developed a constructivist version of Grounded Theory. She argues that categories and theories do not emerge from data, but are constructed by the researcher through an interaction with the data. Inspired by the interpretative tradition within qualitative methodology, her main focus is on how participants construct meanings and actions in specific situations. Charmaz view Grounded Theory methods as a set of principles and practices that can be used flexible and in different ways. Charmaz also argue that the researchers should reflect upon how they themselves affect the research process.

Within psychology, the main alternative method for someone considering Grounded Theory is Interpretative Phenomenological Analysis (IPA) (Smith, Flowers, & Larkin, 2009). Smith and colleagues state that there are several overlap between IPA and the recent constructivist versions of Grounded Theory on the whole. The main difference between these two methods is that IPA is likely to offer a more detailed and nuanced analysis of the experience of a small number of participants with an emphasis on the convergence and divergence between participants (Smith et al., 2009). In contrast, a Grounded Theory study is more likely to offer analysis at a more conceptual and exploratory level based on a larger sample and where the individual accounts are used to illustrate the conceptual claims of the study.

The research questions of the present dissertation called for a flexible research method offering guidelines for rich conceptual and theoretical analysis based on a relatively large research sample. On these grounds, a flexible use of Grounded Theory methods was considered optimal for the specific purposes of our studies (Charmaz, 2006; Corbin and

Strauss, 2008). Consistent with Grounded Theory, the present dissertation aimed at developing a theoretical understanding of body image disturbance and emotional regulation that was grounded in empirical data about every day experiences of the participants in the study. The purpose of Grounded Theory methods is to construct a set of well-developed categories (themes, concepts) that are systematically interrelated through statements of relationship to form a theoretical framework that explain some phenomena. However, not all Grounded Theory researchers agree on this ultimate objective of theory building. Instead, some researchers recommend a more thorough description on the second level (“conceptual ordering”) in order to create more abstract descriptive models and explanations of the objective of the study. A descriptive use of Grounded Theory is increasingly common (Willig, 2008). In this dissertation, the use of Grounded Theory methods was adjusted to the research question in each paper. In paper 1 and 2 we aimed at developing a theoretical understanding of body image disturbance, while we in paper 3 aimed at describing the link between specific basic emotions and different eating disorder behaviours.

Theoretical sampling and two-phase design

The purpose of theoretical sampling differentiates Grounded Theory from quantitative sampling methods in which the sampling is established before the research begins. The purpose of theoretical sampling is to collect data from places, people and events that will maximize opportunities to develop concepts in terms of their properties, dimensions, uncover variations and identify relationships between concepts (Corbin & Strauss, 2008). Of these grounds, the present study was conducted in two different phases and with different samples. The two-phase design allowed us to develop theoretical concepts and hypotheses in the first phase that could further be explored in depth in the second phase. In this way, the phase 1 interviews guided the theoretical sampling of the interviews in the second phase (Corbin & Strauss, 2008). An overview of the two-phase design is presented in table 1.

In phase 1 we used an open interview strategy that thematically explored a range of experiences associated with AN. The specific purpose of these interviews was to detect which of these experiences that were available for and needed further investigation. Two phenomena - body image experiences and emotional regulation - emerged as particularly important in this first phase of the study. Descriptions of these phenomena were then used in the planning and gathering of the phase 2 interviews. By using a more strategic and homogenous sample combined with a thematically focused interview strategy, the aim of the second phase was to get rich, in depth descriptions of different aspects of body image experiences and emotional

processing. An example of the theoretical sampling was that participants in the first phase explained that they used their anorectic behaviour to avoid or escape from their negative affect (Nordbø et al., 2006). In the second phase of the study we developed an interview guide which more specifically explored how the participants experienced specific emotions and how they viewed the link between their emotions and their eating disorder behaviours.

Table 1

	Phase 1	Phase 2
Aim of the study	Open exploratory study	Focused study
Sample characteristics	A relatively heterogenous sample of 18 women recruited from four clinical institutions, having met the criteria for AN within the past two years before the study found place	More homogenous sample consisting of 14 women currently receiving treatment for AN at two specialized services for eating disorders
Interview themes	The experience of living with and being treated for anorexia nervosa	Body image experiences and emotional regulation

The study is part of the collaborative research project “Anorexia nervosa: Patients’ experience”. The first phase of the study (18 patients) is common to all the studies in the project. The second phase of the project is separated into different sub-projects exploring different themes and using different samples of patients. The studies presented in this dissertation report results from a sub-project about body image and emotional experiences. Another sub-project has reported results about meaning and motivation in AN (Nordbø et al., 2006; Nordbø et al., 2008; Nordbø et al., 2011).

Within Grounded Theory, theoretical saturation is usually defined as “when no new data are emerging” or as “when gathering fresh data no longer sparks new theoretical insights” (Charmaz, 2006). Corbin and Strauss (2008) have developed the definition of saturation in light of the purpose of theoretical sampling. According to them, theoretical saturation occurs when the researcher has explored each category in some depth, and has identified its various properties and dimensions under different conditions (Corbin & Strauss, 2008). In the present study, the concepts were developed through the use of data from both phases of the study. After 32 interviews, it was our view that the concepts were sufficiently well developed for the purpose of our study. That means, the categories developed offered

sufficiently depth and breath to describe the phenomena investigated, and the relationships between different categories were relatively clear. We therefore viewed the data gathering as saturated. However, theoretical saturation does not exclude the possibility that other constructs and relations would have been detected by using a larger or different sample.

Participants

In phase 1, the sample included 18 women aged 20-34 years (mean 25.8), all diagnosed with AN within the past two years (American Psychiatric Association, 1994). The participants were recruited from four different clinical institutions in Norway. At the time of the interview, 14 of the informants were treated as outpatients and 4 as inpatients. Six of the participants reported a history with the binge-purge subtype of AN and twelve with the restrictive subtype of AN. At the time of the interview, 12 participants fully satisfied the criteria for the diagnosis of AN. Six participants viewed themselves as being in recovery and had recently gained weight. The mean reported lowest body mass index (BMI) while having AN was 13.2 (range 8-17). Lowest BMI is missing for one informant. At the time of the interview, their mean BMI was in the range from 10.7-21.3, but we lack current BMI information for 6 participants. The mean duration of AN was 10 years (range 1-22 years), and mean years of treatment was 6 years (range ½ -14 years). Four participants had partners and two had children.

In phase 2, the sample consisted of 14 women aged 20-39 (mean 29.1) receiving treatment for AN (American Psychiatric Association, 2000) at two specialized services for eating disorders in Southern Norway. Inclusion criteria were that the participants were formally diagnosed with AN (American Psychiatric Association, 2000) at admittance to treatment and within the last year before the interview found place. At the time of the interview, eight participants were treated as inpatients and six were outpatients. Six participants were diagnosed with restrictive AN and eight participants with the binge-purge subtype of AN. Duration of AN was on average 10 years (range 3-25 years). Their lowest BMI during their history with AN was on average 14.6 (range 12-16). At the time of the interview, current BMI was on average 17.5 (range 14.2-23.1). Due to intensive in-bed treatment, three of the participants had recently reached a weight within the normal range (BMI>20). One participant was pregnant in her third trimester (BMI 19). Ten participants viewed themselves as being in recovery and had recently made changes in their eating disorder behaviour. Four participants reported few changes and more negative views on the future. Four participants had partners, one was separated and two had children.

Setting and procedure

The women who participated gave informed consent. In phase 1, the author conducted half of the interview and Ragnfrid H. S. Nordbø the other interviews. In phase 2, the author conducted all the fourteen interviews included in the present dissertation. The interviews were audio taped and lasted between 75 and 120 minutes.

In phase 1, we explored a range of experiences associated with AN; the daily life with AN, self-perception, relation to other people, body image experiences, emotional experiences, motivation for change and treatment experiences. The data was collected by means of a semi-structured, informant-centred “experience interviews” (Holte, 2000), which is an informant centered strategic conversation format developed from communication theory (Littlejohn, 1996). An interview guide (Appendix 1) was developed that worked as a chord schema to be improvised on when necessary and as a checklist of issues, rather than as a list of questions that mechanically structured the course of the interview. The role of the interviewer was to concentrate on, listening to and responding precisely to the participants’ narrative. Rather than by posing questions, the interviewer structured the course of the conversation by means of open instructions (“Tell me more”), reference to her own impressions (“How sad!”) and frequent use of verbal (“Really?”) and nonverbal (nodding) facilitators. The quality of the data in such studies depends on the degree to which the participant understands the interviewer’s intentions with the interview. All participants were, therefore, thoroughly informed about the purpose of the study. They were provided with written information about the study and an oral description of the purpose and procedure of the study by their therapist or by one of the first three authors. The information was repeated on the phone when the interview appointment was made and again when the interview started. Many of the participants spontaneously started to talk about their history with AN, others were introduced to the themes of the study.

In phase 2, we used a more focused interview strategy. The interview guide in phase 2 (Appendix 2) was provided with more detailed prompts and probes to stimulate reflections specifically and exclusively about body image and emotional experiences. The participants were asked some key questions about how they experienced their own body appearance and how they managed their emotions. Although the interview strategy in phase 2 was more focused, the participants were allowed to influence the content and direction of the interviews. The interviewer concentrated on and responded to the participants’ narrative and tried to help the participants to describe - as detailed as possible - their experiences of their own body appearance and emotions. To elicit descriptions of body appearance, participants were asked

key questions about their body image experiences, such as: “Now, please tell me about the appearance of your own body...”, “What do you see when you look at yourself in the mirror?” or “Tell me now, please, how do you think other people see your body?”. To encourage the participants to reflect upon their body image fluctuations, they were asked questions like: “Tell me, do you think the way you perceive your own body changes over the course of the day or does it stay pretty much the same?” They were also asked to describe perceptions, emotions and thoughts about their own body in different daily life contexts such as looking in the mirror, taking a shower, or meeting friends. Last, the participants were prompted to describe how they managed negative affect in general and more specifically how they managed different basic negative emotions such as anger, sadness, fear and disgust. Some examples were; ‘Do you ever feel angry?’ and ‘Tell me, how is it for you to express anger towards other people?’ To elaborate on the link between their emotional experiences and eating disorder behaviours, the participants were asked questions like; “In what way do you think your eating disorder helps you to cope with your emotions?” or “Does the eating disorder help you when you feel sad?”

In both phases, the quality of data was ensured by careful considerations of several procedures including: (a) the interviewers were clinically psychologists trained specifically in the interview techniques utilized in the study, (b) in writing, by telephone, and face to face, assuring that the informant shared the interviewer's intentions with the conversation, (c) preparation of a structured interview guide, (d) informant-centred conversation strategy, where the interviewer concentrates on listening and responding precisely to the informant's narrative, including emotional content, and freely improvises over the interview guide, (e) a self-correcting interview technique in which the interviewer consecutively and at the end summarizes her understanding of each point in the participant's story, (f) monitoring of audiotapes by a senior researcher, (g) verbatim comprehensive transcripts checked against audiotapes.

Data analysis

The data consisted of verbatim transcripts of audiotapes and post interview notes. After repeated listening and readings of each interview, qualitative analysis was conducted following the guidelines of Grounded Theory (e.g. open coding, focused coding, axial coding and constant comparisons) (Charmaz, 2006; Corbin & Strauss, 2008). To facilitate organization of the data, the qualitative research software NVivo version 8 (QSR International) was used in the analysis of interviews. During the whole analysis process, the

author wrote memos. The purpose of memo writing is to raise the central focused codes to conceptual categories. The analysis was conducted in several steps. In the following I will describe the common steps in the analysis and give some examples of how the analysis was adjusted to the research questions in each paper.

First, each interview was read several times to get a first impression of each participant's history and central themes. Then, an *open, exploratory thematic coding* was conducted according to a bottom up principle. This involves going through each line of the transcript, capturing meaning and comparing data instances for similarities and differences. Unlike quantitative methods, which to a great extent apply preconceived categories to data, grounded theorists construct their codes by defining meanings and making analytic interpretations to concrete statements. The active coding forces the researcher to interact with data, asking questions about data, making interpretations and comparing incidents to incidents. Charmaz (2006) argues that the initial coding ensures that all emerging concepts are grounded in data, and emphasises that each written line of the text should be coded. Corresponding to the main research questions in this dissertation, we coded all text excerpts that included statements about the topics investigated (e.g. body image experiences and emotional regulation). Each text excerpt was then labelled according to their essential meaning, e.g. the text excerpt "When I feel depressed I always see myself as fat" was labelled "Mood affects body image". The coding was based on contextual analysis and not restricted to the words the participants used. An example is that statements like "I *am* fat", "I *see* a fat body", "I *feel* that I look fat" and "I *think* that I'm fat" all were interpreted as different qualities of body image (including perceptions, cognitions and emotions).

Second, all the coded material was compared, grouped and lifted into *higher-order constructs*. Each higher-order construct was defined with reference to the content of meaning of all the relevant text excerpts coded under the same construct. For example the higher-order construct "Interpersonal influence" described in paper 2, was defined as "Changes in body image triggered by being exposed to others' expressed or unexpressed opinions regarding oneself and one's appearance". All the definitions were continuously adjusted as the analysis developed. In developing the higher-order constructs, we endeavoured to find theoretical solutions in which as few as possible relatively independent constructs were needed to conceptualize as much as possible of the variance in the data. Accordingly, different solutions were tried out to find the best fit between the complexity in the data and theoretical constructs. This process has many similarities with exploratory factor analysis in that we try to identify a few important factors or dimensions to describe the variability among a large set

of variables or codes. An example of this process was when we in paper 1 found that the variation between participants in body image experiences could be described according to two underlying dimensions. The “subjective reality” dimension ranged from perceiving one’s body as thin/underweight (“I look like a skeleton”) to fat/overweight (“I only see my fat buttocks”). The “objective reality” dimension ranged from acceptance of the objective reality that one’s body is underweight (“I’ve always seen that I’m thin”) to rejection of the objective reality (“I have never had any such experiences as ‘maybe I’m a bit thin’. Never”).

Third, *axial coding* was conducted to explore the relationship between different codes and constructs. While the open coding refers to deconstruction of data (e.g. breaking data apart), axial coding refers to reconstruction of data. In this phase, our main aim was to explore how different concepts were related to each other. An example of axial coding was when we in paper 1 combined experiences from the higher-order constructs into four conceptual categories using a 2 x 2 table. The four phenotypes that emerged (e.g. “Integration”, “Denial”, “Dissociation”, “Delusion”) specified different types of relations – integration/disintegration – between the higher order constructs. This coding process gave a theoretical model that described individual variation in body image experiences according to four conceptual categories. Based on these categories we also induced the central theoretical concept of the analysis; the definition of body image disturbance as a disintegration between “Subjective reality” and “Objective reality”. In paper 2, we found that all the contextual cues identified in this study (“food intake”, “body awareness”, “emotional experiences” and “interpersonal influences”) appeared to be driven by a common factor described by many participants as their own uncertainty regarding their real appearance. In lack of a stable experience of their own body appearance, they described themselves as being extremely vulnerable to different contextual cues such as their own food intake, emotional states and other people’s utterances. Based on these descriptions, we also induced the central theoretical concept of the analysis - “uncertainty about one’s appearance” - as a basic eliciting factor behind body image fluctuations.

To arrive at the final constructs, the constructs that had been generated through the open coding and axial coding were validated against the original text using *confirmatory and selective coding* (Corbin & Strauss, 2008). In this process, the applicability of the higher order-constructs was checked by semantically reanalyzing and recoding all text excerpts that were coded under the specific construct. The purpose of this backward translation was to ensure that the generated constructs fitted with the original text, to detect possible overlaps

between constructs and to identify whether there was need for adjustments, supplements or refinements.

Ethical considerations

The study was approved by the Regional Committee for Medical and Health Research Ethics in Southern Norway. All patients received written information about the study and then gave written consent to participate. The research project was conducted according to the Declaration of Helsinki. All procedures were conducted in accordance with the Helsinki declaration. Several ethical issues were considered as strengths of the study. First, the participants were invited to participate in the study as “Experts” and not as research subjects. Through all the written and oral information about the study, the role as experts was highlighted. Many of the participants spontaneously told that they appreciated the opportunity to contribute to knowledge development in order to help other people in their own situation. Second, all the participants were recruited through their clinical institutions and therapists. This way, we ensured that the participants’ possible emotional reactions after the interviews were completed, were taken care of by their therapists. Third, the interviewers had no other relation to the participants or the clinical institutions than being researchers in the project. Thus, the participants could feel free to talk about issues related to their personal experiences - also about their therapy - without being afraid that what they told in the interviews would influence their treatment or treatment decisions. Fourth, although the project did not intend to have any therapeutic effects on the participants in the study, several of the participants and their clinicians reported positive effects of the interviews. Being asked to explain one’s symptoms to the interviewer could, for example, be described as a way to gain insight into and understand one’s disorder in a better way. However, these points do not rule out the possibility that some of the participants might have experienced the participation as difficult.

RESULTS

Summary of Paper 1

“The concept of body image disturbance in anorexia nervosa: An empirical inquiry utilizing patients’ subjective experiences”.

The aim of paper 1 was to explore the concept of body image disturbance as it is experienced in the daily life of patients with AN. In this paper, we utilized data from both phases of the study. The sample consisted of 32 women (aged 20-39 years) diagnosed with AN (DSM-V). In the analysis we identified four phenotypes of body image disturbance - “Integration”, “Denial”, “Dissociation”, and “Delusion” - which differed according to whether the patients overestimated their own body size (“Subjective reality”), and whether they acknowledged the objective truth that they were underweight (“Objective reality”). “Integration” refers to having an undistorted and adequate experience of one’s own body’s appearance. “Denial” is present when a person, who despite perceiving her body as thin, rejects the fact that there are medical consequences to her being severely underweight. “Dissociation” refers to coping with one’s body image experiences by psychologically dissociating oneself from objective facts about one’s own appearance. “Delusion” refers to being convinced that one’s subjective body image is undistorted and shared by others. The results suggest that body image disturbance should be conceptualized as a dynamic failure to integrate subjective experiences of one’s own body appearance with an objective appraisal of the body.

Summary of paper 2

“Fluctuations of body images in anorexia nervosa: Patients’ perception of contextual triggers”.

The aim of the study was to explore which everyday situations and contexts AN patients themselves associate with self-perceived fluctuations in their body images. We utilized data from both phases of the study. The total sample included 32 women (20-39 years). The results suggest that body image is a dynamic phenomenon that may fluctuate in different situations and contexts. The participants linked such fluctuations to their own uncertainty about their real appearance. In lack of a stable and integrated experience of their own body, they were extremely sensitive towards body image threats and challenges in their daily life and reacted

to these situations by fluctuations in their body image. Four triggering contextual factors were identified; “Eating food”, “Body awareness”, “Emotional experiences” and “Interpersonal influences”. ‘Eating food’ refers to body image fluctuations triggered by eating food, or by the participants’ thoughts and emotions when consuming food. “Body awareness” refers to changes in body image triggered by situations in which the participants were exposed to or reminded of characteristics of their body appearance. “Emotional experiences” refers to fluctuations triggered by the participants’ mood, emotions or affective states. “Interpersonal influences” refers to fluctuations triggered when the participants related to and interpreted other people and their opinions about themselves and their appearance, whether others had expressed such opinions or not. The contexts identified in this study had in common that they trigger negative emotional reactions in the individual such as uncertainty, tension and fear. The findings suggest that the patients’ ability to cope with their body image experiences in different daily life contexts depends on their affective arousal.

Summary of paper 3

“The link between negative emotions and eating disorder behaviour in patients with anorexia nervosa”.

The aim of paper 3 was to explore how the participants managed their basic negative emotions (i.e. sadness, anger, disgust and fear) and how they related these experiences to their eating disorder behaviours. We utilized data from the second phase of the study. The sample consisted of 14 women with AN. The participants explained that they inhibited expression of sadness and anger in interpersonal situations and reported high levels of anger, fear of becoming fat, and disgust towards themselves and their body. Different emotions were managed by means of different eating disorder behaviours. Sadness was linked to body dissatisfaction, and was managed through restrictive eating and purging. Anger was avoided through restrictive eating and purging, and released through anorectic self control, self harm and exercising. Participants avoided the feeling of disgust by avoidance of food and body focused situations. Fear was linked to fear of fatness and was managed through restrictive eating, purging and body checking. The findings suggest a rich and complex picture of the interaction between specific negative emotions and different eating disorder behaviours.

DISCUSSION

The present dissertation was designed to investigate three main topics. First, we explored the concept of body image disturbance as it is experienced in the everyday life of patients with anorexia nervosa (AN). Second, we explored which everyday situations and contexts patients associate with self-perceived fluctuations in their body image. Third, we explored how patients with AN manage their basic negative emotions and how they relate these experiences to their eating disorder behaviours. Different from most previous studies, these topics were explored by utilizing the subjective experiences of women with AN. The findings contribute to the literature in several ways.

The concept of body image disturbance

Paper 1 suggests an empirically grounded dimensional model of body image disturbance in which individual differences are conceptualized as varying along two underlying dimensions. These were subjective reality (e.g. the degree to which the patient overestimate her own body size) and objective reality (the degree to which the patient accepts the objective reality that her body is underweight). The dimensional approach is in accordance with the existent literature on body image which suggests a continuum model with levels of disturbance ranging from none to extreme (Thompson et al., 1999). Possibly the current DSM-IV criteria reflect an implicit, albeit not fully articulated, continuum of body image dysfunction (Cash & Pruzinsky, 2002). Our study adds to the previous literature by exploring and conceptualizing the underlying dimensions of body image disturbances in patients with AN. We thereby suggest a new way of thinking about individual differences in body image disturbance.

In paper 1 we conceptualized four empirically based phenotypes of body image disturbance corresponding to different psychological processes patients may use to cope with their body image experiences. These were “integration”, “denial”, “dissociation” and “delusion”. “Integration” is the clinically least severe phenotype occurring in patients with an undistorted and adequate experience of their own body’s appearance. This could indicate that stable integration is associated with insight into one’s illness and readiness for behaviour change.

“Denial” is a well acknowledged mechanism of AN in the literature on eating disorders (American Psychiatric Association, 2000; Vandereycken, 2006a; Vandereycken, 2006b; Vandereycken & Van Humbeeck, 2008). Denial may include refusal to acknowledge

illness, distress, thinness, hunger, fatigue, fear of weight gain, and specific behaviours such as dietary rituals and laxative abuse (Vitousek, Daly, & Heiser, 1991). The mechanisms behind denial are, however, poorly understood. Vandereycken (2006a; 2006b) suggests that denial in AN could be categorized as either an unintentional denial, including distorted information processing, or as a deliberate refusal of self-disclosure (e.g. concealment of symptoms). Accordingly, the mechanisms involved in denial may vary greatly. Our results suggest that denial may also be understood as a psychological protection against the unpleasant reality of being underweight. For some patients denial may simply represent an unwillingness to accept or deal with objective facts because the patients do not want to interrupt their self-starvation-project.

An association between body image disturbance and dissociative phenomena has previously been described in patients with bulimic behaviour (Beato, Cano, & Belmonte, 2003; Vanderlinden & Vandereycken, 1997; Vanderlinden, Vandereycken, & Probst, 1995). These studies address dissociation in terms of dissociative disorders (American Psychiatric Association, 2000). Dissociation may, however, range from an emotion of which the individual is aware but excludes from the self temporarily, to the extremes of fugue states and dissociative identity disorders for which the individual has no recollection (Power & Dalgleish, 2008). In paper 1 we used dissociation to refer to the process in which the patients cope with their body image experiences by psychologically dissociating themselves from objective facts about their own appearance (“Yes I know that I’m thin, but I see that I’m fat”). Thus, dissociation refers to splitting thought processes into separate compartments (e.g. through derealization or depersonalization). The dissociation phenotype may shed light on the clinical experience that many patients, despite the fact that they acknowledge that they are severely underweight, are ambivalent to behaviour change and weight gain.

In DSM-IV AN-patients’ perceptions and beliefs are defined as “intense beliefs” or “overvalued ideas”, and not as “delusional”. The DSM reflects the commonly held opinion that AN-patients acknowledge that their perceptions are not shared by others, e.g. that their reality testing is intact. In paper 1 we tentatively challenge this view by suggesting that some AN-patients are so convinced that their body image experiences are undistorted and shared by others that it would be appropriate to classify them as having a “delusional disorder” or with the diagnostic signifier “low insight” (Steinglass, Eisen, Attia, Mayer, & Walsh, 2007). This finding is in accordance with the classification of the related diagnostic category of “Body Dysmorphic Disorder” (BDD) (American Psychiatric Association, 2000) in which patients can receive an additional diagnosis of delusional disorder if their “preoccupation with an

imagined defect in appearance is held with a delusional intensity”(p.510). Steinglass and colleagues (Steinglass, Eisen, Attia, Mayer, & Walsh, 2007) identified a subgroup of AN-patients with body image that had delusional character. Also, Grant and colleagues (Grant, Kim, & Eckert, 2002) identified a subgroup of AN-patients with comorbid body dysmorphic disorder (BDD) and higher levels of delusional in their body images.

Body image fluctuations

In paper 2 we explored how body image experiences fluctuate *within* women with AN. Consistent with previous studies we found that body images are affected by different internal or external factors such as food intake (Vocks et al., 2007; Thompson et al., 1993), body exposure (Haimovitz et al., 1993; Vocks et al., 2007; Tiggemann, 2001; Cash et al., 2002; Smeets et al., 2011) and emotional experiences (Baker et al., 1995; Plies & Florin, 1992; Taylor & Cooper, 1992; Coelho et al., 2010). While the previous studies were conducted in laboratories and measured the effect of different exposure factors on healthy women’s satisfaction with or perception of their own body, our study adds to the literature by describing how these processes are experienced by women with AN. Our findings support the view that body image is not a stable and dispositional trait of the patient, but is a dynamic and state-like phenomenon that might fluctuate over time and contexts (Cash & Deagle, 1997; Farrell et al., 2005; Cash et al., 2002; Tiggemann, 2001; Cash, 2002b).

In paper 2 we suggest that the basic driving factor behind body image fluctuations is the patients’ uncertainty about their real appearance. In lack of a stable and integrated experience of their own body appearance, the participants in our study seemed to be extremely sensitive towards body image threats and challenges in their daily life contexts. Rather than focusing on the simple presence of body image disturbance (e.g. whether the patients perceives her body as fat or not), these findings suggest that it is potentially more clinically and theoretically fruitful to try to understand the psychological processes involved in uncertain and unstable body image experiences. Such processes may include patients’ uncertainty in the recognition of their physical sensations of hunger and satiety (e.g. interoceptive awareness) (Garner, Olmsted, & Polivy, 1991; Garner, Olmsted, & Polivy, 1983), uncertainty in the recognition of their own emotional experiences (e.g. alexithymia) (Taylor, 1994; Taylor et al., 1997) and uncertainty in the interpretation of other people’s thoughts and emotions (e.g. Theory of Mind) (Oldershaw et al., 2011; Oldershaw et al., 2010).

The contexts identified in paper 2 were food intake, body awareness, emotional experiences and interpersonal influences. All these contexts have in common that they trigger negative emotional reactions in the individual such as uncertainty, tension, fear, anxiety, and disgust. One way to understand these findings is that patients' ability to cope with and integrate their body image experiences depends upon their affective arousal. As shown in paper 2, most participants reported moments of insights in which they suddenly saw and acknowledged that their body was too thin. Examples of such unstable integration were when the patients unexpectedly see the reflection of their own body in a window or when they try on clothes in a shop. In other situations, however, such as when they eat food or meet their friends, they feel uncertain and anxious. In these contexts it may seem like their emotional reactions impair their capacity to reflect upon and integrate their body image experiences, which may result in experiencing one's body as expanding or simply feeling fat. These findings are in agreement with previous studies which suggest that self-activating and negative affect mediate the link between different contextual cues and body dissatisfaction (Coelho et al., 2010; Smeets et al., 2010; Smeets et al., 2011). Together, such findings might indicate that confrontation with threatening information may induce negative affect (e.g. anxiety), which again trigger body image fluctuations (e.g. feeling of fatness).

Emotional regulation

Difficulties in emotional regulation are intensely discussed as an important underlying factor and/or consequence of anorectic behaviour (Oldershaw et al., 2011). In paper 3 we explored how patients with AN view the link between different basic negative emotions and their eating disorder behaviours. Consistent with several theoretical models of eating disorders (Corstorphine, 2006; Fox & Power, 2009; Schmidt & Treasure, 2006; Skårderud & Fonagy, in press), we found that the participants in our study engaged in certain behaviours (e.g. restrictive eating, purging, physical activity and body checking) as a means to avoid or regulate their negative affect. Our findings add to the literature by describing how these processes could be specifically linked to different affective states.

There is growing consensus that disgust is an important emotion in eating-disordered women, and in particular for food and body related stimuli (Davey et al., 1998; Troop et al., 2000; Troop et al., 2002). Disgust is regarded as an emotion that creates a psychological and physical distance between the self and the object of disgust (Power & Dalglish, 2008). The behavioural reaction when feeling disgust is avoidance of the object of disgust or removal of

the disgusting stimuli. The SPAARS-ED model (Fox & Power, 2009) postulates that the feeling of disgust becomes an over-learned and automatic emotion in women with eating disorders. In line with these theoretical points, our participants described disgust as a bodily invading emotion that is easily triggered in a range of contexts, including during food intake, body focused and interpersonal situations. No participants told that they tried to suppress or inhibit the feeling of disgust. These findings might support suggestions that disgust has a central role in the maintenance of eating disorder (Fox and Power, 2009).

Anger may be conceptualized as a multifaceted construct comprising both anger states and anger traits (Spielberger, 1996). A growing body of studies has found that patients with AN suppress their anger in interpersonal situations (Geller et al., 2000; Hayaki, Friedman, & Brownell, 2002). Yet, there is also evidence that patients with eating disorders have higher levels of state anger than comparison groups (Waller et al., 2003). In paper 3 we found that the participants struggled to control or inhibit their anger in interpersonal situations, but also reported high levels of uncontrolled anger towards themselves, which surfaced as strict self-control, self-harm and exaggerated exercise routines. These findings agree with Ioannou and Fox (2009) who found that emotional inhibition was specifically predicted by anger being perceived as threatening. Our findings also replicate the study of Fox (2009), in which the participants explained that they used their anorectic behaviour to inhibit or suppress their anger in interpersonal situations.

Sadness may be regarded as an appraisal of loss or failure to fulfil a valued role or goal, and is viewed as an emotion that prompts the individual to make demands for help (Power & Dalgleish, 2008). In our study, sadness was described as an ever-present emotion and was closely related to depression and body dissatisfaction. When our participants felt sad, they spoke of feeling depressed, hopeless and dissatisfied with themselves and their own body. Several studies have found a close association between negative affect and body dissatisfaction (Sim & Zeman, 2006; Stice, 2001). In the SPAARS-ED model, the link between sadness and body dissatisfaction is explained by the connection of the feeling of sadness and disgust. Fox and Power (2009) argue that the feeling of disgust is used to inhibit the emotion of sadness from being experienced or expressed.

Though fear of 'fatness' is one of the diagnostic criteria of AN, less attention has been paid to the link between fear and anorectic behaviour (Fox & Power, 2009; Pallister & Waller, 2008). The function of the emotion fear is to prepare and empower the individual for fight or flight in the presence of an appraised danger. Several studies have found high comorbidity of eating disorders and anxiety (Godart, Flament, Perdereau, & Jeammet, 2002;

Godart et al., 2003; Pallister & Waller, 2008). Waller (2008) argues that many of the behaviours that characterize eating disorders (e.g. restriction, bingeing, vomiting, body checking) can be understood as safety behaviours used to reduce the immediate level of anxiety. On the other hand, Fox and Power (2009) argue that the fear of becoming fat seen in patients with eating disorders can be understood as disgust reactions. Consistent with this view, some studies have found a close association between the feelings of fear and disgust (Davey & Chapman, 2009; Uher et al., 2005). The emotions fear and disgust share the common function in distancing oneself from a feared object (Power & Dalgleish, 2008). In support of this, we found that the participants in our study felt that they actually grew or expanded when they were anxious or afraid.

Hilde Bruch (1962; 1978) proposed that the experience of being fat seen in AN patients was directly connected to their inability to distinguish or express their own emotional states. In line with these clinical descriptions, several studies have found a close link between emotional inhibition and body image dissatisfaction (Geller et al., 2000; Hayaki et al., 2002; Sim & Zeman, 2006; Zaitsoff, Geller, & Srikameswaran, 2002). Thus, it is suggested that body dissatisfaction reflects a process in which unexpressed emotions or threatening feelings are displaced onto the body (Fox & Power, 2009; Zaitsoff et al., 2002). In support of this, paper 3 suggest that different negative emotions as sadness and fear were specifically linked to body disgust and body dissatisfaction.

Paper 3 suggests a close association between the feeling of disgust and body dissatisfaction. However, the disgust AN patients feel towards their body and their tendency to avoid or dissociate from their body are far more complex phenomena than the body dissatisfaction that is widespread among Western women (Cash, Morrow, Hrabosky, & Perry, 2004; Tiggemann, 2004). We therefore argue that body dissatisfaction is too non-specific a concept to apply to the severity and complexity of AN patients' emotions towards their body.

Clinical implications

Research on psychotherapy strongly and consistently supports the centrality of the therapeutic relationship as a primary factor contributing to therapeutic change (Norcross, 2002). The stronger the alliance, the greater the therapeutic change (Orlinsky, Rønnestad, & Willutski, 2004). However, establishing therapeutic alliances with AN patients are both intellectually and emotionally challenging (Vitousek, Watson, & Wilson, 1998; Zeeck & Hartmann, 2005). The nature of the psychopathology of AN may represent challenges and harmful effects on

the therapeutic alliance. The patients' contribution to weak therapeutic alliances is often described in terms of phenomena like "denial of illness" (Vandereycken, 2006a; Vandereycken, 2006b; Vandereycken & Van Humbeeck, 2008) "lack of motivation" (Geller, 2002; Geller, Zaitsoff, & Srikaneswaran, 2005; Nordbø et al., 2011; Vitousek et al., 1998) and "difficulties in expressing emotions" (Taylor et al., 1996). As shown in our results, anorectic behaviour is highly complex in the way the patients "translate" their emotions into body dissatisfaction or eating disorder behaviour. The clinicians' contribution to weak therapeutic alliances may be based in the problem of understanding the very nature of AN. A lack of understanding may lead to lack of commitment and patience, to moralising statements and coercive behaviour; or worse – clinicians may be provoked to aggression and rejection. These reactions may be further reinforced by the self-starvation inducing rational fear of somatic complications and death. Working systematically with the patients' subjective body experiences and the link between emotions and eating disorder behaviour may be beneficial both for patient and therapist; and consequently for the therapeutic alliance. For the patients this may mean to be stimulated in the capacity to investigate their feelings, cognitions, bodily sensations and relations to other people. For the therapists this may mean to take a "naïve stance" (Bruch, 1973; Skårderud, 2009) and engage in a curious investigation of the patient's subjective experiences, and hence to discover the actual person behind the diagnosis.

Our findings suggest that there are important differences between patients both in severity and stability of body image disturbances. Rather than focusing on the simple presence of body image disturbance (e.g. whether the patient perceives herself as fat or not), these findings point to the importance of exploring the individual patient's subjective body image experiences in different everyday life contexts. In this process, the four phenotypes and the four contexts associated with fluctuations may serve as a guide to discover nuances or qualities of such experiences.

The differences in severity of body image disturbances may also be associated with different prognoses and different treatment strategies. For instance, the integration phenotype may be the most prognostically positive because the patients are able to see and acknowledge that they are sick. These patients may be ready for treatment that focuses on behaviour change. Individuals with the denial phenotype may feel that they benefit the most from their AN symptoms (Nordbo et al., 2006; Nordbo et al., 2008). These patients may benefit from therapy focusing on the functional role of their eating disorder (Cockell, Geller, & Linden, 2003). The dissociative phenotype refers to a disconnection between emotional states and reason or intellect. One may hypothesize that this group of patients would benefit from efforts to

integrate their internal subjective experiences with the objective reality. Mentalisation-based therapy for eating disorders would be an example of such an approach (Skårderud & Fonagy, in press). Finally, the delusion phenotype refers to patients who are completely convinced that their subjective experiences are undistorted and shared by others; e.g. seemingly being stuck in their own experience of themselves as fat. These patients would likely benefit from therapy that proceeds cautiously and prioritizes alliance building and increasing trust, as described in Motivational Enhancement Therapy (Geller et al., 2001; Miller & Rollnick, 2002) and mentalisation-based therapy for eating disorders (Skårderud & Fonagy, in press).

Furthermore, our results suggest that some patients have quite unstable and fluctuating body images and hence may fluctuate between different phenotypes of body image disturbance. It might therefore be helpful to track changes in patients' body image over time. For instance, perhaps patients who oscillate between different phenotypes have a different recovery path from those who have a relatively stable phenotype. Clinicians could also explore whether changes in body image disturbance correspond to meaningful shifts in other aspects of recovery (e.g. eating disorder symptom severity or comorbid psychological conditions).

Based upon our conceptualization of body image disturbance as a dynamic disintegration of subjective and objective reality, one goal of therapy might be to achieve a stable and dynamic integration of one's feelings, thoughts and perceptions of body appearance. Thus, therapy might focus on helping the patients increase awareness of subjective experiences while connecting these to the objective reality of their actual weight status. Our findings also suggest that the fluctuations in body images appear quite automatically in a range of daily life contexts. An important clinical task is therefore to help the patients to become aware of and recognize their own body image fluctuations and then to connect these with emotional, cognitive and relational contexts in a psychologically meaningful way. Through such meta-reflections ("I feel fat but I know it's because I feel sad") the patients may also learn to accept and deal with their emotional reactions in more adaptive ways.

Methodological considerations

The researcher's explicit reflections on their own research as part of the process of knowledge production, is seen as the very heart of qualitative validation (Flick, 2002). Within quantitative research, methodological considerations are commonly discussed in relation to concepts as "generalizability", "validity" and "reliability". These constructs are, however, not directly transferable to qualitative research.

Generalizability

Generalizability refers to the extent to which we can make inferences of our findings to a broader population (Shadish, Cook, & Campbell, 2002). In accordance with Grounded Theory, the main aim of this dissertation was conceptual and theoretical exploration. On these grounds, the results can only be generalized at a theoretical level. Furthermore, data was gathered using theoretical sampling methods and the sample included was not a statistically representative sample of patients with AN. Thus, we do not know whether our sample was a typical sample of patients with AN. An important question is: Can our findings then have theoretical significance for the consideration of AN or eating disorders in general?

The first threat to the generalizability of our findings is that the sample was restricted to ethnically Norwegian women aged 18-39. Other findings would most likely have been detected by using another sample. However, given the rarity of AN in the population, the clinical institutions from which the participants were recruited had relatively few patients with this diagnosis and most of them were asked to participate in the interview. It was, therefore, our consideration that the sample was a quite typical clinical sample of women with a history of severe AN in a Norwegian context. A second threat was the fact that the diagnoses were established by clinical teams working at the clinical institutions, and not by the research team. The teams consisted of clinical specialists in psychology and psychiatry with considerable experience of clinical work with eating disorders and the diagnoses were based upon excessive clinical assessment. The diagnostic information was also checked against self-reported information about anorectic symptoms. However, we cannot exclude the possibility that some participants would have been excluded if we had used more strict inclusion criteria. A third threat to the generalizability of our findings is the high degree of heterogeneity in our sample. The inclusion of both restrictive and binge/purge subtypes of AN in the sample was considered positive since the aim of the study was to provide a range of views on patients' experiences of AN. However, we do not know whether our findings could be transferable to more specific samples of AN patients. Fourth, to ensure that the participants had sufficient experience to be able to reflect upon the questions they were asked, we oversampled patients with relatively long careers of AN and also included women that regarded themselves as being in recovery from AN. It was our experience that the women in recovery were able to retrospectively reflect upon their experiences in a way that gave very rich data. However, it may limit generalizability of our findings to younger women in a more acute phase of AN.

Validity

The *validity* of research findings is relative to the kinds of understandings or knowledge we construct, not a property of the methods we use (Shadish et al., 2002). Validity means that there are good reasons to believe that the concepts and inferences we have constructed account for the phenomena they were meant to describe. Several threats to the validity of our findings could be identified. In depth studies of subjective experiences require that participants reflect upon their own experiences. The retrospective recollection of experiences is subject to recall bias which may also influence the validity of our findings. We cannot exclude the possibility that these participants' experiences were coloured by their present situation, e.g. that they have reinterpreted their experiences in light of their present insight into their symptoms, their current weight-status, their general knowledge about eating disorders or recent treatment experiences. Our sample included both severely underweight and weight-recovered women. Thus, it is possible that their experiences reflected their current weight status more than the experience of having AN more generally. Furthermore, some of the participants had previously fulfilled the diagnostic criteria for other eating disorder diagnosis. This is in accordance with the high "drop over" in eating disorders (Milos et al., 2005). Although all participants were specifically asked to describe experiences from the time period when they were underweight and had AN, we can not exclude the possibility that some of the descriptions included in the present dissertation not solely reflect experiences from AN.

Another possible limitation is that the participants had experienced therapists with various clinical traditions. We cannot rule out that the participants' therapists have influenced how the participants understood and reflected upon their personal experiences. However, most of the participants had experienced therapists from a variety of clinical traditions. Although the interview format used in this study was designed specifically for this study to give structure and richness to the data without shaping the informants' report, we can not exclude that some participants' experiences and verbal responses may have been shaped by the interview protocol and/or the interviewer. This was particularly a threat in the second phase of the study where the interviews to a greater extent were driven by theoretical hypotheses based upon the experiences from the first phase of the study. An example was when we in phase 2 asked questions about the link between negative emotions and eating disorder behaviours. We cannot rule out the possibility that the participants constructed an account of this relationship in response to the researchers' specific questions about a possible link.

Furthermore, a possible threat to the validity of our findings is the possibility that the higher order constructs developed in our studies do not account for the complexity and variation in the phenomena they were meant to describe. It is possible that more phenotypes of body image disturbances, other contexts associated with body image fluctuations and other emotional regulation strategies could be identified. In developing the higher-order constructs we endeavoured to find solutions that to the greatest extent accounted for the variation in data. In this process, several theoretical solutions and different numbers of constructs were tried out to find the best fit with data. To further develop our findings, one may use factor-analysis to find out whether the factors presented in our results would sort into the same pattern or whether less or more constructs would be necessary to describe the variation in the reported experiences.

Within Grounded Theory, grounding refers to ideas and concepts earning their way into analysis (Glaser, 1998). Thus, the concepts or terms developed through the analysis should be grounded in the data and not in theoretical presuppositions. A possible threat to the validity of our findings is the possibility that the researchers imposed their own perspectives and understandings of eating disorders on the data analysis. As clinicians and researchers, we surely used our theoretical background within psychology/psychiatry as well as our competence within the specific research field of eating disorders in the analysis of data. But, having clinically and theoretically understandings of eating disorders do not mean that we used preconceived categories or codes in the analysis of data. The objective of the present dissertation was to explore the patients' subjective experiences, not to test preconceived categories or theoretical understandings. Accordingly, we tried, as far as possible, to define codes and constructs by giving meaning to what we saw in the data. Furthermore, Glaser and Strauss (1967) argued that the researcher must have a perspective to analyse the data. It was our consideration that our knowledge about eating disorders allowed for a much fuller analysis than otherwise would have been achieved. To ensure that our concepts were grounded in the participants' (and not in the researchers') subjective experiences, the developing analysis was regularly discussed within the research group. This allowed a process in which all the developing concepts and interpretations were challenged, reassessed and reinterpreted in the light of the aim of the study. A particularly strength in this process was that the researchers had quite divergent theoretical understandings of eating disorders and, thus, that the findings were approached from many different angles. However, this does not exclude completely that authors' bias may have influenced the data analysis.

Reliability

Within quantitative research, *reliability* refers to consistency of measurement. Transferred to qualitative data, reliability could mean to check the inter-rater consistency between different coders. However, in discovery-oriented studies like the present, aiming at rich conceptual and theoretical analysis of the topics investigated, quantitative reliability and validity tests are rarely recommended. As an alternative way of ensuring reliability, most qualitative researchers highlight the importance of *transparency* and *credibility* (Charmaz, 2006; Corbin & Strauss, 2008; Glaser & Strauss, 1967) in the research process. *Transparency* means that all stages of the analysis should be conducted so systematically and described so clearly that it would be possible for others to check the whole research process and ensure that the analysis has credibility for an external and independent audit (Smith et al., 2009). *Credibility* indicates that findings are trustworthy and believable in that they reflect participants', researchers' and readers' experiences with a phenomenon (Corbin & Strauss, 2008). To add credibility to the present study, the initial coding of the interviews in phase 1 was conducted by two authors (the author and my co-author R.S.N.). In this process, divergent interpretations were discussed until consensus was reached. In the second phase, the author carried out all the interviews and the analysis. To add credibility to this process, the developing analysis was regularly discussed within the research team and continuously monitored by the supervisors. This allowed for an external evaluation of the research process whereby concepts and interpretations were challenged, discussed and reassessed. The results have also been presented to experienced clinicians in the field of eating disorders. This allowed for an external check of the credibility and clinical utility of our findings. For the reader to be able to judge the trustworthiness of our findings, all the constructs developed in our analysis have been defined and illustrated with concrete examples from the interviews. For transparency reasons, we also reported the number of participants whose interview led to the inference of a given construct (in paper 1 and 2). Finally, to facilitate the critical reader's possibility to judge the credibility of our analysis, the processes of data gathering and data analysis have been described in as much detail and as thoroughly as possible. However, these steps to enhance the validity of the analytic process, does not exclude that the use of several coders would have strengthened the quality of our analysis.

Last, but not least, the studies presented in this dissertation have several strengths. First, a particular strength was that we investigated AN patients' everyday experiences of their body and emotions as described in their own words and with reference to detailed contextual factors in the patients' natural environment. This way, we aimed at developing

empirically grounded concepts and theoretical understandings that were both clinically and ecologically valid. A second strength was the use of an advanced two-phase design that allowed our research questions to be addressed in two separate samples and with strategies that were specific for the two samples. We thereby ensured that we had rich enough data to develop our theoretical constructs and understandings of the topics investigated. A third strength was that the interview format was specifically developed for our study; it was aimed at giving structure to the data without shaping the informant's report and was responsive and interactively tailored to each participant. A strong argument in favour of the personal interview in this type of study is the potential for tailoring the data collection method to each specific participant and interactively exploring the authenticity of and reflections about the reported experiences.

Further research

Our findings need to be replicated qualitatively and quantitatively in other samples. One way to validate our concept of body image disturbance would be to utilize the hundreds of qualitative statements (i.e. quotations) collected in this study to produce items for a multidimensional pencil-and-paper test of body image disturbance. Ratings made on these items by a suitable sample of patients could then be subjected to factor analysis to see whether the four phenotypes of body image disturbance and the contexts associated with body fluctuations could be replicated quantitatively.

Our findings suggest that there are important differences between patients in severity of body image disturbances. Further research is needed to find out how these differences relate to other characteristics such as co-morbidity, duration of illness and personality disorders. Although "delusion" appears to be the clinically most severe phenotype, further research is needed to determine whether patients with delusional body image experiences have more severe pathology, longer duration of illness, or lower level of functioning than other patients with AN (Grant et al., 2002).

Our findings suggest that body image is a dynamic and fluctuating phenomenon. However, we also found important differences between the patients in degree of such fluctuations. While some patients seem to have highly fluctuating body images that changes with different contexts, others seem to have less contextually dependent, relatively stable body images that look more like dispositional properties ("personality traits"). We do not know to which extent the factors that maintain stable body images differ from those that

maintain the unstable body images. Investigation of differences between patients in degree of fluctuations may be critical to enhance our understanding of the mechanisms involved in body image disturbance. Of particular interest here would be to scrutinize the relationship between fluctuation and different phenotypes of body image disturbances, illness duration, transition to other eating disorder diagnosis (e.g. bulimia nervosa) and comorbidity with personality disorders and other psychopathology (Ro, Martinsen, Hoffart, Sexton, & Rosenvinge, 2005).

A particular strength of this study was that we investigated patients' body image experiences with reference to detailed contextual factors in the patients' natural environment. However, the study included no objective measurements of such changes in body image. To further develop our findings, one might use a multi-point questionnaire assessments or diary that measure body image fluctuations in the real contexts and several times per day (Melnyk et al., 2004; Rudiger et al., 2007; Vansteelandt, Rijmen, Pieters, Probst, & Vanderlinden, 2007).

In paper 3, we explored AN patients' experiences of their negative and aversive emotions and chose to exclude positive emotions such as happiness and joy. Anorectic behaviour has, however, been described as inducing positive feelings such as mastery and control (Nordbø et al., 2006) and pride (Skårderud, 2007). Corstorphine and colleagues found that women with eating disorders were more likely to avoid situations that could provoke positive as well as negative affect (Corstorphine et al., 2007). Furthermore, several recent studies suggest a close relation between avoidance of positive affect and eating disorder behaviours (Lampard, Byrne, McLean, & Fursland, 2011; Raykos, Byrne, & Watson, 2009). More research is needed to explore the specific link between positive emotions such as happiness, joy and love and eating disorder behaviours.

The present findings suggest specific relationships between certain negative emotions and different eating disorder behaviours. The presence of mood symptoms such as anxiety and depression may, however, pose a challenge for the study of emotion in patients with AN. It may be difficult to determine if the emotional disturbances are related to or even caused by these co-occurring symptoms. Prospective studies which investigate co-occurring mood symptoms may be needed to find out more about the relation between anxiety, depression and emotional regulation in AN.

CONCLUSIONS

The primary aim of this doctoral dissertation was to utilize the subjective experiences of patients with AN to increase our understanding of some central psychological phenomena of the disorder, namely body image disturbance and emotional regulation. The use of patients' subjective experiences had two different rationales. First, we aimed at gaining a better understanding of how patients with AN experience and understand these aspects of their disorder. Such knowledge may be useful in order to establish treatment alliances with this patient group, taking the patients' experiences as the point of departure for motivational work and therapy. Second, based upon these experiences, we aimed at developing theoretical concepts and understandings of how we might understand these aspects of the disorder. Thus, the patients' subjective experiences were regarded as an alternative source of knowledge to understand some of the cognitive, emotional and interpersonal mechanisms that may be involved both in the development, maintenance and remission from AN.

Current treatment models of eating disorders highlight the link between negative emotions and anorectic behaviours in general. The present dissertation suggests close relationships between emotional regulation and body image disturbance, and between specific emotions and different eating disorder behaviours. Knowledge about how patients understand these aspects of their illness may be an important addition to further the more specific development of treatment programs of AN. The main findings of this dissertation are:

- Body image disturbance may be conceptualized as a failure to integrate subjective experiences of one's own body appearance with and objective appraisal of the body.
- Severity of body image disturbances may range from integration to delusion.
- Body image disturbance may be regarded as a dynamic phenomenon that may vary across time and situations.
- Stability of body image disturbance may range from relatively stable to very unstable, uncertain and fluctuating body experiences.
- Body image disturbance seems to be triggered in a range of daily life contexts which share in common that they trigger affective arousal in the individual.
- There seems to be specific relationships between certain basic negative emotions and specific eating disorder behaviours.
- The concept of body dissatisfaction seems to be too non-specific to apply to the severity and complexity of patients' emotions towards their own body.

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**The link between negative emotions and eating disorder behaviour
in patients with anorexia nervosa**

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ABSTRACT

Background: Several theoretical models suggest that deficits in emotional regulation are central in the maintenance of anorexia nervosa (AN). Few studies have examined how patients view the relationship between negative affect and anorectic behaviour. We explored how patients with AN manage the aversive emotions sadness, anger, fear and disgust, and how they link these experiences to their eating disorder behaviours.

Methods: Qualitative data was collected through semi-structured interviews with 14 women aged 19-39 diagnosed with AN (DSM-IV). Interviews were analyzed using Grounded Theory methods.

Results: The participants tended to inhibit expression of sadness and anger in interpersonal situations, and reported high levels of anger towards themselves, self-disgust and fear of becoming fat. Different emotions were managed by means of specific eating disorder behaviours. Sadness was particularly linked to body dissatisfaction, and was managed through restrictive eating and purging. Anger was avoided by means of restrictive eating and purging, and released through anorectic self-control, self-harm and exercising. Fear was linked to fear of fatness and was managed through restrictive eating, purging and body checking. Participants avoided the feeling of disgust by avoiding food and body focused situations.

Conclusion: Treatment models of eating disorders highlight the significance of working with emotional acceptance and coping in this patient group. Knowledge about how patients understand the relationships between their negative emotions and their anorectic behaviour may be an important addition to treatment programs for AN.

Keywords: anorexia nervosa; emotion regulation; emotion avoidance; sadness; disgust; anger, fear

1. Introduction

Difficulties with emotional regulation have long been noted as a key feature in patients with anorexia nervosa (AN). Emotional regulation may be defined as the ability to understand one's emotions and to modulate emotional experience and expression (Gross, 2002). Studies describe how patients with AN have problems identifying and regulating their negative affects (Bydlowski et al., 2005; Gilboa-Schechtman, Avnon, Zubery, & Jeczmierni, 2006; Harrison, Sullivan, Tchanturia, & Treasure, 2010; Harrison, Sullivan, Tchanturia, & Treasure, 2009; Jansch, Harmer, & Cooper, 2009; Parling, Mortazavi, & Ghaderi, 2010). Despite growing attention to the relationship between affect regulation and eating disorder behaviour in general, the specific processes involved in patients with AN are less known. The aim of the present study is to explore how patients with AN manage their negative emotions and how they link these experiences to their anorectic behaviours.

Several theoretical models suggest that eating disorder behaviour serves as a means to regulate affect (Cooper, Wells, & Todd, 2004; Fox & Power, 2009; Schmidt & Treasure, 2006; Skarderud & Fonagy, 2011; Waller, Corstorphine, & Mountford, 2007). Binge-eating has been regarded as a way to escape aversive self-awareness (Heatherton & Baumeister, 1991) or block painful emotions (Cooper et al., 2004). There is also increasing attention to the role of anorectic symptoms as a means to avoid or regulate negative affect. For example, Schmidt and Treasure (2006) have proposed a maintenance model of AN that emphasizes the role of anorectic symptoms in facilitating avoidance of negative affect. They suggest that the exclusive mental focus on food and eating is associated with emotions becoming less salient and the patients describing themselves as emotionally “numb” (p. 347). The function of anorectic symptoms as a means to manage difficult emotions is also consistent with studies that assess anorectic patients' view of their own symptoms (Cockell, Geller, & Linden, 2003; Kyriacou, Easter, & Tchanturia, 2009; Nordbo, Espeset, Gulliksen, Skarderud, & Holte, 2006; Serpell, Treasure, Teasdale, & Sullivan, 1999). An example of this is that patients have explained how self-starvation helps them to avoid or control their aversive emotions (Nordbo et al., 2006).

Recently, Fox and Power (2009) have developed a theoretical model of eating disorders (i.e. SPAARS-ED) that incorporates contemporary theories of emotion and research findings within the field of eating disorders. The model is based upon the Schematic Propositional Analogical Associative Representation System (i.e. SPAARS) (Power &

Dalgleish, 2008). According to the SPAARS-ED model, each basic emotion (i.e. sadness, happiness, anger, fear and disgust) is linked to an appraisal of an event, which signals an individual into action. For example, anger can be understood as an emotional response to the blocking of goals, while disgust leaves the individual with a strong urge to keep distance between the self and the object of disgust. A key point in the SPAARS-ED model is that when a particular emotion (e.g. anger) is viewed as unacceptable or bad for the self, this emotion may develop in a modularized manner and may become ego-dystonic and dissociated from the self. Another key point in the SPAARS-ED model is that different basic emotions can become linked together and have either a facilitatory or inhibitory function to one another. Fox and Power suggest that the feeling of disgust is an over-learned and automatic emotion in patients with eating disorders, and that it may be used to inhibit other more painful emotions (i.e. sadness, anger and fear) from being expressed or experienced.

To further the more specific development of treatment programs for AN, more knowledge is needed about the link between negative affect and eating disorder behaviours. Few empirical studies have explored how the patients themselves experience and understand these processes. A recent study by Fox (2009) is the only study we have found that explores anorectic patients' perception and management of different emotions (i.e. happiness, sadness, anger, disgust and fear). Fox found that the participants related their anorectic behaviour specifically to the emotion of anger and to a lesser degree to sadness. The participants explained that they used their eating disorder to avoid or suppress their anger. The present study was conducted to further explore how patients with AN manage their negative emotions and how they regard the relationship between their emotions and their eating disorder behaviours. Since managing negative affect appears to be particularly challenging, we have restricted our analysis to explore how patients manage the basic aversive emotions of sadness, anger, fear and disgust.

2. Methods

2.1 Research Design

A descriptive study design was used and principles of grounded theory (Corbin & Strauss, 2008) were followed for the collection and analysis of data. The purpose of grounded theory methods is to develop concepts and theoretical understandings that are grounded in data (e.g. constant comparative method, open coding, focused coding, axial coding). The

objective of this study called for a descriptive use of grounded theory rather than the original theory-building mode (Charmaz, 2006). The design was also founded on a Patient as Expert Perspective, i.e. the patient is regarded as an expert on her/his own experience. This type of study requires the researcher to help the patient explore, reflect on and precisely verbalize her or his experiences.

The study was part of a larger research project about how patients experience living with AN (Espeset et al., 2011; Nordbø et al., 2006; Nordbø et al., 2008; Nordbø et al., 2011). To maximize study validity, we used a two-phase study design. First, a wide-angled and exploratory study on a sample of 18 patients with AN was conducted. The purpose of this phase was to describe a wide range of experiences associated with living with AN, of which the emotional experience was one. Results from this study suggest that many participants perceived self-starvation as a means to avoid or escape from difficult emotions (Nordbø et al., 2006). In the second phase, we conducted a focused study on a sample of 14 other women with AN in which the interviews specifically addressed the patients' emotional experiences. The aim of the second phase of the study was to further explore how patients use their anorectic symptoms to manage their negative emotions. The present paper only presents results from the second phase of the study.

2.2 Participants

The sample consisted of 14 women aged 20-39 (mean 29.1) receiving treatment for AN (American Psychiatric Association, 2000) at two specialized services for eating disorders in southern Norway. Inclusion criteria were that the participants should have met the criteria of AN (American Psychiatric Association, 2000) at admittance to treatment and no longer than one year before the interview took place. Diagnoses were established by clinical teams at the clinical institutions, consisting of clinical specialists in psychology and psychotherapy with considerable experience of clinical work with eating disorders. Six participants reported a history with restrictive AN, while eight participants were diagnosed with the bulimic subtype of AN. Duration of AN was on average 10 years (range 3-25 years). Their lowest body mass index (BMI) during their history with AN was on average 14.6 (range 12-16). At the time of the interview, current BMI was on average 17.5 (range 14.2- 23.1). Eight participants were treated as inpatients and six were outpatients. Due to intensive in-bed treatment, three of the participants had recently reached a weight within the normal range (BMI>20). Ten participants viewed themselves as being in recovery and had recently made changes in their eating disorder behaviour. Four participants reported few changes and more

negative views about the future. Four participants had partners, one was separated, two had children and one participant was pregnant.

2.3 Ethical aspects

The study was approved by the Norwegian Regional Committee for Medical Research Ethics. All participants were provided with written information about the study and an oral description of the purpose and procedure of the study by their therapist or the first author. The women who participated gave informed consent. All procedures were conducted in accordance with the Helsinki declaration.

2.4 Setting and Procedure

The data were collected by means of semi-structured, informant-centred interviews. All interviews were conducted by the first author (EMSE). The interviews were audio taped and lasted between 75 and 120 minutes. We used a focused interview strategy aimed at exploring how participants experienced and coped with their emotions. An interview guide was developed that worked as a checklist of issues to be addressed rather than as a list of questions that mechanically structured the interviews. All participants were prompted to describe how they managed negative affect in general and more specifically how they managed different basic emotions such as anger, sadness, fear and disgust. Some examples were; ‘What do you do to cope with your sadness?’ and ‘Tell me, how is it for you to express anger towards other people?’ Participants were also asked to elaborate on the link between their emotional experiences and eating disorder behaviours: “In what way do you think your eating disorder helps you to cope with your emotions?” and “Does the eating disorder help you when you feel sad?”

2.5 Data analysis

Interview transcripts were analyzed by the first author (EMSE) using techniques from grounded theory (Corbin & Strauss, 2008). To add credibility to the study and to ensure that the concepts were well represented and grounded in the data, the analysis was regularly discussed within the research team and continuously monitored by the last author (AH). This allowed for an external evaluation of the research process whereby concepts and interpretations were challenged, discussed and reassessed. To facilitate organization of the data, the qualitative research software NVIVO (QSR International, 2008) version 8 was used in the analysis of interviews.

The analysis was conducted in several steps. First, each interview transcript was read in detail and an interpretative summary was written to capture potential themes and an overall impression. Second, we conducted an open, exploratory thematic coding (Corbin & Strauss, 2008). This process involved going through each line of the transcripts and coding segments of text according to their meaning. The active coding forces the researcher to interact with data, e.g. asking questions about them, making interpretations, comparing incident to incident etc. In this process, we identified all text excerpts that described a link between eating disorder behaviours and specific negative emotions. These text excerpts were further sorted into different sub-constructs according to their content of meaning; e.g. the experience of specific emotions (sadness, anger), emotional regulation strategies (e.g. avoiding emotions, suppressing emotions, inhibiting emotions) and symptomatic behaviours (e.g. restrictive eating, purging, self-harm). Third, we conducted axial coding with the purpose to detect relationships between the constructs developed in the open coding. In this process we explored how different symptomatic behaviours (e.g. restrictive eating) were linked to specific emotions (e.g. sadness) and was described to have a specific affect regulating functions (e.g. suppression). An overview of these results is presented in table 1. Finally, all 14 interviews were analyzed again using focused coding (Corbin & Strauss, 2008). In this process, all constructs that had been generated through the open coding were validated against the original text using confirmatory and selective coding. The purpose of this backward translation was to ensure that the generated constructs fitted with the original text, to detect possible overlap between constructs, and to identify whether there was need for adjustments, supplements or refinements.

3. Results

In the interviews participants described how they managed their negative emotions. They also reflected upon the relationship between their emotional experiences and eating disorder behaviours. All participants meant that they in some way used their eating disorder behaviour to manage their emotions. Different emotional regulating strategies were described. *Avoiding emotions* refers to when participants used their anorectic behaviour to defocus or avoid awareness of their own emotional reactions. They referred to their focus on body, weight and food as a means to avoid difficult feelings. Participants also avoided situations that could trigger emotions, such as eating food, body focused situations or interpersonal relations.

Participants also explained that they *inhibited expression* of emotions such as when they avoided expressing their negative emotions in front of others. *Suppressing emotions* refers to when the participants used their eating disorder behaviour to modulate the intensity of their emotions or block their emotional reactions. They could restrict their food intake or exercise to dampen their intensive emotions or to calm down. Lastly, the anorectic behaviour could also be described as a means to *release emotions*, such as their exercising serving as a means to channel out difficult feelings.

In the analysis, our main focus was on understanding the processes by which patients manage the aversive emotions sadness, anger, disgust and fear. The results are arranged by type of emotion and include the patients' subjective experience of the specific emotion and the different strategies participants used to manage each emotion. The main pattern of how emotions and regulation strategies are linked to specific eating disorder behaviour is presented in table 1. In the following sections, the sub-constructs and their empirical basis will be described in more detail and illustrated with extracts from the interviews. Due to space constraints the interview extracts have been edited, though not in a way that interferes with the individual's style of phrasing or emotional colouring. Information that could possibly reveal the participant's identity has been removed.

3.1 Sadness

Sadness was described as an overwhelming emotion. Many participants said that they felt sad, lonely and hopeless most of the time. In the participants' descriptions there was a close association between feeling sad or depressed and body dissatisfaction. When they had a bad day or felt depressed, they said that they experienced their body as fat, disgusting or awful.

Elina: There are days when I wake up in a bad mood. Then I feel that everything is terrible and that I look ugly. Usually I don't feel ugly, but if I wake up in a bad mood, the whole day is awful. And when I go to school, I feel that I've put on the wrong clothes and that I look awful. It's those days when everything is awful and I wish that I wasn't alive.

The participants explained that they used different strategies to manage their sadness. These strategies were linked to specific eating disorder behaviours and were sorted into the following sub-constructs; "Avoiding awareness of sadness", "Inhibiting expression of sadness" and "Suppressing sadness".

3.1.1 Avoiding awareness of sadness

Several participants said that they used their anorectic behaviour as a means to defocus or avoid their sadness. They tried not to relate to their own feelings to prevent feeling depressed. As long as they *concentrated their thoughts on food, body and weight*, they did not have to relate to their own sadness.

Interviewer: Do you think the eating disorder helps you to cope with your sadness?

Johanna: I think it was a way to change focus. Because when I focus on exercising, eating healthy and losing weight, there's no room for thinking about being sad.

3.1.2 Inhibiting expression of sadness

Participants described sadness as a threatening and inexpressible emotion. Some of the participants were afraid of receiving negative feedback if they expressed sadness. Others associated sadness with weakness. They were afraid of becoming a burden or putting strains on others if they expressed their sadness. Since sadness was experienced as an inexpressible emotion, several participants resorted to *masking their sadness* in front of other people. Although they felt depressed most of the time, they pretended to be happy when they were with others. In these descriptions it appeared that they acknowledged their sadness when they were alone, but inhibited expression of these feelings in front of others. Although masking sadness is not strictly an eating disorder behaviour, it is included because the participants referred to this behaviour as part of their eating disorder.

Elina: I don't let anybody see how I feel. I hide it. If I'm sad, I'll do anything to prevent others from seeing it. I live in my own little world. Nobody knows how bad I feel. I just pretend to be glad, but as soon as I come home that's not how I feel.

3.1.3 Suppressing sadness

Several participants said that they regulated or suppressed their sadness by means of *food restriction* or *purging behaviour*. They could comfort themselves by restricting their food intake. Some differentiated between the restrictive pattern of anorexia and more bulimic patterns. They explained that anorexics comfort themselves by not eating, while bulimics comfort themselves by purging. In line with this distinction, participants with bulimic subtype said that they used purging to suppress different negative emotions, including their sadness.

Lene: When I feel sad, I'm actually a very sensitive person and I often feel sad and begin to cry, then I always react to food - I don't eat or I throw up.

Furthermore, restraint eating and purging were described as emotion regulation strategies in that controlling one's food intake was described as inducing positive feelings such as happiness, mastery and control. These positive feelings were described as a means to stifle or suppress one's sadness or depression.

Wendy: I used to buy large amounts of food and eat and purge when I felt sad. Or perhaps I starved myself. I could get a kick by restricting my food intake or vomiting. It made me happy!

Some participants said that they never felt sad and never cried. They explained that their anorexia had stifled their sadness and that they were not able to recognize the feeling of sadness.

Anne: I haven't cried since I was thirteen years old. So it really affects my feelings. Sometimes I wish that I could sit down and cry and let my feelings out. But they're actually gone. I really can't recognize them. I don't know if I'm sad or angry or what I feel....

3.2 Anger

Anger appeared to be one of the most difficult emotions to process and express. The participants described anger as a particularly unpredictable, uncontrollable and terrifying emotion. Several participants described having difficulty tolerating their anger. They did not like themselves when they became angry, and could not handle or manage their surroundings when angry. Some participants highlighted the anger they felt towards themselves; they felt irritation, aversion and hate towards themselves and how they lived their life. Others were most concerned about their difficulties with their expression of anger and irritation in interpersonal situations.

Participants described a range of strategies used to manage their anger. These were linked to several - but specific - eating disorder behaviours. The strategies were sorted into the sub-constructs of "Avoiding anger", "Inhibiting anger" and "Releasing anger".

3.2.1 Avoiding anger

Some participants said that they had a lot of anger towards themselves or their own situation. The eating disorder behaviour was described as a strategy to avoid the anger and irritation they felt towards themselves. As long as they *concentrated on food, body and weight*, they did not have to deal with their irritation and anger.

Aase: I'm really dissatisfied with myself and my achievements in life. And I get so angry and irritated when I think about it. I'm angry because I don't do the things I should have done, because I sleep too long in the morning, because I have too little structure in my life, because I don't have control over myself. But if I don't think about it, I avoid becoming that irritated. And that's why I just keep going without stopping.

Participants also reported that they avoided situations that could trigger anger or irritation. Several participants described a close association between food intake and anger. They explained that they always became angry when they ate food or had food in their stomach. *Restrictive eating* and *purging* were described as strategies to avoid becoming angry.

Ylva: Now when I'm supposed to eat more food, I've noticed that all my feelings are surfacing. And then I see that I actually have a lot of anger. 'Cause when I eat I always become angry and irritated. It's like a nasty restlessness inside me. It feels like an evil energy. I don't like becoming conscious about it.

Jane: I get so irritable when I eat. I've noticed that I can't handle my surroundings when I have food in my stomach. And I don't like myself when I'm angry, so to prevent myself from becoming irritated I don't want food in my stomach... So I don't eat or I purify myself. But I do best when I don't eat at all.

3.2.2 Inhibiting expression of anger

Expressing anger was described as terrifying and dangerous. Participants were afraid of being rejected or disliked if they expressed anger. Some claimed that they never were angry or that they had not been angry for years. Others said that they felt angry, but did not allow themselves to react. They inhibited their anger in front of others.

Anne: I was never angry! Still, I don't get angry. Perhaps I get irritated, but I don't get angry. I think it's terrifying to become angry. It's unpredictable and scary. What will actually happen if I become angry? Maybe they will never talk with me again.

Physical activity was described by several participants as a strategy to inhibit their anger in interpersonal situations. When they experienced conflicting situations, they could react by running two miles rather than confronting the other person.

Interviewer: If there is a situation in which you become irritated at another person, how is it for you to express your anger?

Cindy: In such situations, I just feel this inner restlessness. And when I feel that way, I always react by physical activity and high activity level. Rather than confronting the other person, I run from my feelings.

On the other hand, participants could use *food* or their eating disorder behaviour to express their anger or irritation towards others. They could punish others by refusing to eat anything.

Lena: I reacted to all those situations with food. If I became angry, I did not eat anything. Because then I knew that my husband would become sad.

Ylva: I started to use the food very early. If there was a quarrel or discussion before dinner, I just said: "I don't want any food!" and went to my room. It was my way to punish my parents.

3.2.3 Releasing anger

Anger was described as a particularly uncontrollable and unpredictable emotion. The participants described their anger as a force or a negative energy that needed to be controlled. The struggle to control their anger was often mentioned. However, there were also situations in where they let go of control over their anger. They released their anger towards themselves or towards close family members.

Some participants described the *anorectic self-control* as a means to release the anger they felt towards themselves. The anger was apparent in the way they structured and controlled their behaviour, their food intake and their exercising.

Interviewer: Is there any link between the aggression you feel towards yourself and your eating disorder behaviour?

Aase: Yeah, it's the structure I get, I feel that I push myself and my body, I feel that I keep myself under control. And then I actually feel much better about myself.

Participants also referred to *self-harm* such as cutting themselves or using large amounts of laxatives as a way to release their anger or punish themselves.

Irene: I cut myself if I want to punish myself. It's when I want myself to feel pain and if I feel that I'm stupid or incapable or like I'm not worth anything. I also use laxatives to punish myself. But it's really painful. If you take hundreds of laxatives, you really think that you're gonna die.

Exercising was described by several participants as a means to release their anger or irritation. The expended physical energy was described as a modulation of their anger, which made them feel that they were calming down.

Ylva: When I get angry, I just wanna stomp on the floor or set off at a run. It feels like a force inside me that needs to be let out. I just wanna walk or bike long enough because then the pressure inside me disappears. I've noticed that the pressure gets less and less the farther I walk.

Participants also explained that they released their anger towards their close family-members. They referred to *temper-outbursts* in which they let their irritation or anger come out. Although these reactions were not directly linked to anorectic behaviours, participants described their temper-outbursts as quite abnormal and as symptomatic of their eating disorder.

Berit: I could be very aggressive and irritable towards my family. They never understood why. I became very angry because of trifling things. I would yell and slam things about. It was quite abnormal.

3.3 Fear

Fear and anxiety were described as overwhelming and invading emotions. A few participants explained that they were afraid most of the time. They described their fear as an ever-present restlessness or lump in their stomach. Others linked their fear to body, weight and food intake. They were extremely afraid of gaining weight. When they ate food, they felt anxious, fat and out of control. Furthermore, several of the participants said that they were extremely concerned about other people and their opinions about them. Meeting others could be associated with tension and anxiousness, and could easily trigger a fear of being “fat” or being a “failure”. In the participants’ description of the feeling of fear, there was often a link to disgust and body dissatisfaction. Participants explained that when they felt nervous or anxious, they could suddenly imagine that their body was expanding or that they were fat.

Wendy: I’m so concerned about what others think about me when they meet me. I’m so afraid that they think that I’m too fat. And when I come to the meeting place, I get so nervous. I just feel fat and disgusting.

Participants explained that they managed their fear by means of different eating disorder behaviours. These were sorted into the sub-construct of “suppressing fear”.

3.3.1 Suppressing fear

Fear was a feeling that the participants managed mainly by suppression. Three eating disorder behaviours were used to suppress fear. Some participants described *restrictive eating* as a means to manage their fear. Being hungry could suppress their feelings of being scared or anxious.

Johanna: I remember when I was child, I was so anxious every night when I went to bed. I was afraid of falling asleep because I knew that I would get nightmares. But then I started to concentrate on something else. I focused on feeling empty, or actually I was always hungry when I went to bed. So I used to lie in my bed and concentrate on the feeling of being hungry. I thought it was a really good feeling. I felt empty. It was gnawing hunger. It felt safe and known.

Participants also described *purging behaviour* as a means to calm down when they were frightened or anxious.

Interviewer: What determines whether you throw up when you have eaten something?

Irene: It's the feeling I get afterwards, if I'm anxious or not. It's like a restless lump in my stomach. I think it's anxiety. I don't handle things when I'm full. I don't know how to manage things. I get totally desperate. But when I throw up I feel really good, cause then I feel that I calm down again. I become calm and less upset.

Body checking was also described as a means to manage one's fear and was specifically linked to the fear of gaining weight. Some participants said that they had to check their body or weight several times each day to assure themselves that they had not gained weight.

Ylva: I'm really anxious that I'll put on weight. When I eat I have to check myself to find out if I've gained weight. I put my food aside and start checking. I check my arms, my shoulders and my hips. If I'm able to feel my bones, I'm safe and might finish the meal. But if I feel that my bones are soft or that I touch anything soft, then I have to stop eating. Then I suddenly imagine that I've gained a lot of weight; 'Oh no, I'm really fat!'

3.4 Disgust

Participants described disgust as a strong, intense and invading emotion with clear reference to feelings of nausea or sickness. They illustrated their experience of disgust by means of facial expressions and gestures that clearly denoted aversion. The feeling was linked to other emotional reactions such as feeling “fat”, “dirty”, “filthy” and “ghastly”. Most participants linked disgust to food intake and the feeling of being full or satiated; eating food made them feel fat and disgusting. Disgust was also described as being triggered in situations when the participants simply became reminded of their own body appearance such as in seeing themselves in a mirror, being touched or taking a shower. Furthermore, disgust was described as an emotional reaction triggered in threatening situations such as when the participants felt vulnerable towards others' judgements or received negative feedback from others. In these situations, they reacted by feeling “awful”, “disgusting” and “fat”. In all these descriptions there was a close association between disgust and body dissatisfaction. When participants felt disgust, they also felt fat and big.

The strategy participants used to manage their disgust was avoidance. The avoidance strategies were directly linked to eating disorder behaviours such as eating food, body

awareness and restrictive eating and purging. These findings are presented under the sub-construct “avoiding disgust”.

3.4.1 Avoiding disgust

Participants explained that they avoided feeling disgust by avoiding a range of situations that were linked to disgust. They *avoided food and body awareness* as well as social situations in which they had to expose their body to other people. Participants also avoided physical closeness and sexuality.

Aase: When I eat... I feel sick and guilty. ... I feel that I'm filled up. My body is filled. I just feel... disgusting. I feel totally... I feel that the food invades everything. ...It's a disgusting feeling of gluttony. I feel so much better when I don't eat.

Lena: I don't like being touched, and especially not my stomach. Because then I feel fat. I think it's disgusting. It's because I'm so conscious about my body and then I'm aware of my feelings. I think that's why it's so disgusting.

Participants also avoided relating to their own body. They did not want to look at their body, feel their body or relate to what was going on inside their body. In these descriptions, it appeared that they distanced or dissociated themselves from their own body to avoid the feeling of disgust.

Johanna: It feels like my body is not a part of me...It feels like an alien. I generally feel that it's not my own body, it's somebody else's body, or something like that...

Interviewer: How is it for you to touch your body when you feel that way?

Johanna: It feels disgusting.

....

Interviewer: Did you have sex with your boyfriend?

Johanna: Yeah, but it was really difficult. So I just spaced out. I tried to not be present. I tried to not feel anything. I tried to block everything.

Furthermore, participants explained that the feeling of disgust automatically triggered different eating disorder behaviours such as *restrictive eating* and *purging*. When they felt disgusting, they felt a strong urge to lose weight or remove the food in their stomach.

Berit: Last week I started to eat butter. Butter has always been forbidden. And I felt really sick. I felt like all my body was invaded by the butter. I smelled butter. I tasted butter. I scrubbed my teeth for hours and I showered several times each day. I felt like the butter was everywhere – it was on my hair, on my skin, on my clothes. I had to vomit.

4. Discussion

The aim of the present study was to explore how patients with anorexia nervosa (AN) manage their negative emotions and how they relate these experiences to their eating disorder behaviours. Difficulties in emotional regulation are intensely discussed as an important underlying factor and/or consequence of anorectic behaviour (e.g. Oldershaw et al., 2011; Schmidt & Treasure, 2006; Sim & Zeman, 2006; Fox & Power, 2009; Corstorphine, 2006). Our study contributes to the literature by describing how patients themselves view the relationship between their emotions and their anorectic behaviour. The results show a rich and complex picture of the interaction between specific negative emotions and different eating disorder behaviours.

Consistent with several theoretical models of eating disorders (Corstorphine, 2006; Skarderud & Fonagy, 2011; Schmidt & Treasure, 2006), we found that the participants in our study engaged in certain behaviours (e.g. restrictive eating, purging, physical activity and body checking) as a means to avoid or regulate their negative affect. Our study adds to the literature by describing how these processes may be specifically linked to different affective states. Furthermore, we found that the participants reported having quite different relationships to different emotions. They tended to inhibit their sadness and anger in interpersonal situations, but reported high levels of disgust and anger towards themselves and their body. Last, we found that participants linked emotions in specific ways. For example, the emotions of sadness and fear were both linked to body disgust and body dissatisfaction. These findings support suggestions that self-disgust has a central role in the maintenance of eating disorders and may be used to suppress the more ego-dystonic emotions of sadness, anger and fear (Fox & Power, 2009).

Sadness may be regarded as an appraisal of loss or failure to fulfil a valued role or goal, and is viewed as an emotion that prompts the individual to make demands for help (Power & Dalgleish, 2008). Phenomenologically, the experience of sadness may vary in

intensity and duration. In the present study, sadness was described as an overwhelming and ever-present emotion and was closely related to depression and body dissatisfaction. When our participants described feeling sad, they spoke of feeling depressed, hopeless and dissatisfied with themselves and their own body. Several studies have found a close association between negative affect and body dissatisfaction (Sim & Zeman, 2006; Stice, 2001). Fox and Power (2009) argue that the feeling of disgust may be used to inhibit sadness from being experienced or expressed. In line with this explanation, we found that the participants inhibited their sadness in front of others and suppressed their sadness through restrictive eating and purging.

Anger may be conceptualized as a multifaceted construct comprising both anger states and anger traits (Spielberger, 1996). A growing body of studies has found that patients with AN suppress their anger in interpersonal situations (Geller, Cockell, Hewitt, Goldner, & Flett, 2000; Hayaki, Friedman, & Brownell, 2002). Yet, there is also evidence that patients with eating disorders have higher levels of state anger than comparison groups (Waller et al., 2003). In the present study, the participants described their anger as directed both inward and outward in varying degrees and with varying degree of control over it. The participants struggled to control or inhibit their anger in interpersonal situations and seemed to have high levels of uncontrolled anger directed towards themselves, which surfaced as strict self-control, self-harm and exaggerated exercise routines. One way to understand these findings is that the participants inhibited their anger in interpersonal situations and placed it onto their own body in the form of self-disgust (Fox & Power, 2009). Several studies that support this explanation have found a close link between inhibition of negative affect and body image dissatisfaction (Geller et al., 2000; Hayaki et al., 2002; Sim & Zeman, 2006; Zaitsoff, Geller, & Srikameswaran, 2002). Furthermore, Ioannou and Fox (2009) found that emotional inhibition was specifically predicted by anger being perceived as threatening.

Though fear of ‘fatness’ is one of the diagnostic criteria of AN, less attention has been paid to the link between fear and anorectic behaviour (Fox & Power, 2009; Pallister & Waller, 2008). The function of the emotion fear is to prepare and empower the individual for fight or flight in the presence of an appraised danger. The components of fear are physiological arousal such as “butterflies” in the stomach, cognitions about being in danger and behavioural reactions such as avoiding the feared stimulus or fighting (Power & Dalgleish, 2008). In the present study, we found a close link between fear and eating disorder behaviours. The participants suppressed their fear through restrictive eating, purging and body checking.

Several studies have found high comorbidity of eating disorders and anxiety (Godart, Flament, Perdereau, & Jeammet, 2002; Godart et al., 2003; Pallister & Waller, 2008). Waller (2008) argues that many of the behaviours that characterize eating disorders (e.g. restriction, bingeing, vomiting, body checking) can be understood as safety behaviours used to reduce the immediate level of anxiety. On the other hand, other studies have found a close association between the feelings of fear and disgust (Davey & Chapman, 2009; Uher et al., 2005). The emotions fear and disgust share the common function in distancing oneself from a feared object (Power & Dalglish, 2008). Fox and Power (2009) argue that the fear of becoming fat seen in patients with eating disorders can be understood as disgust reactions. Our findings are consistent with this: the participants in our study explained the anxiousness they felt when eating was connected to their belief that they actually grew or expanded while they were eating.

There is growing consensus that disgust is an important emotion in eating-disordered women, and in particular for food and body related stimuli (Davey, Buckland, Tantow, & Dallos, 1998; Troop, Murphy, Bramon, & Treasure, 2000; Troop, Treasure, & Serpell, 2002). Disgust is regarded as an emotion that creates a psychological and physical distance between the self and the object of disgust (Power & Dalglish, 2008). The behavioural reaction when feeling disgust is avoidance of the object of disgust or removal of the disgusting stimuli. In the present study, disgust was described as a bodily invading emotion that was easily triggered in various contexts, including during food intake and body focused and interpersonal situations. No participants told that they tried to suppress or inhibit the feeling of disgust. Rather, it seemed like disgust was a relatively automatic response. These findings are consistent with the SPAARS-ED model (Fox & Power, 2009), which postulates that the feeling of disgust becomes an over-learned and automatic emotion in women with eating disorders.

Altogether, our findings suggest a close association between the feeling of disgust and body dissatisfaction. However, the disgust AN patients feel towards their body and their tendency to avoid or dissociate from their body are far more complex phenomena than the body dissatisfaction that is widespread among Western women (Cash, Morrow, Hrabosky, & Perry, 2004; Tiggemann, 2004). We therefore argue that body dissatisfaction is too non-specific a concept to apply to the severity and complexity of AN patients' emotions towards their body.

In the present study, we explored AN patients' experiences of their negative and aversive emotions and chose to exclude positive emotions such as happiness and joy. Eating

disorder behaviour has, however, been described as inducing positive feelings such as mastery and control (Nordbø et al., 2006). Similarly, Skårderud (2007) found that AN patients connected their eating disorder behaviour to feelings of pride. More research is needed to explore the specific link between positive emotions such as happiness, joy and love and eating disorder behaviours.

There are limitations to this study. Our sample was restricted to young, ethnically Norwegian women. The generalizability of our findings to other samples is unknown. More research is needed to determine how comorbidity with other mental disorders influences the results. We oversampled patients with relatively long careers of AN to ensure that the participants had sufficient experience to be able to reflect upon the questions they were asked. This may limit generalizability of our findings to younger women in a more acute phase of AN. The sample also included women who regarded themselves as being in recovery from AN. We cannot exclude the possibility that these participants' emotional experiences were influenced by their present situation, e.g. reinterpretation of their experiences in light of present insight about their symptoms, current weight-status or general knowledge about AN. On the other hand, being severely underweight could have influenced patients' insight into and their ability to reflect upon their own emotional experiences. For these reasons, the study was designed to include patients at different stages of recovery. It may be seen as a limitation that we included both restrictive and bulimic subtypes of AN. However, the aim of this study was to provide a range of views on how emotions can affect anorectic behaviour, and, therefore, worked to the study's advantage. A possible limitation is that the participants had experienced therapists with various clinical traditions, which may have influenced their use of language and descriptions of their emotional experiences. Finally, it is possible that some participants' experiences and verbal responses were shaped by the interview protocol and/or the interviewer. However, a strong argument in favour of such interviews is the potential this type of interview has for the researcher to explore and challenge the authenticity of and reflections about the reported experiences.

To sum up, there has been an explosive growth of literature on emotion regulation difficulties in patients with eating disorders. Our study adds to the literature by providing knowledge about how patients experience and manage their negative emotions and how they link these experiences to their anorectic behaviour. The results suggest that there might be specific relationships between different basic negative emotions and certain eating disorder behaviours.

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Table 1: Overview of the link between specific emotions, regulation strategies and eating disorder behaviours

Emotion	Regulation strategy*	Eating disorder behaviour
Sadness	Avoidance	Focusing on food/body/weight
	Inhibition	Masking sadness**
	Suppression	Restrictive eating Purging
Anger	Avoidance	Focusing on food/body/weight Restrictive eating Purging
	Inhibition	Physical activity Using food
	Releasing	Anorectic self-control Self-harm Exercising Temper outbursts**
Disgust	Avoidance	Avoiding food Avoiding body awareness Restrictive eating and purging
Fear	Suppression	Restrictive eating Purging Body checking

* The four regulation strategies are defined as the following:

Avoidance refers to avoid awareness of one's emotions, or avoid situations that may trigger emotions.

Inhibition refers to avoid expressing one's emotions in interpersonal situations.

Suppression refers to modulate the intensity of one's emotions or block one's emotional reactions.

Releasing refers to channel out difficult feelings inwardly or outwardly.

** 'Masking sadness' and 'Temper outbursts' are not strictly eating disorder behaviours, but are included because the participants explicitly referred to these behaviours as part of their eating disorder.

APPENDIX I:

Interviewguide Phase 1

Intervjuguide

Intervjuguiden består av veiledning til intervjuer, introduksjon til informanten, bakgrunnsspørsmål, fire åpne spørsmål, samt sjekkliste. Intervjuguiden er ment å utdype og konkretisere hovedproblemstillingene i undersøkelsen.

1. Veiledning for intervjuer

De åpne spørsmålene gir grunnlaget for samtalen. I stedet for å styre samtalen helt konkret etter tematiseringene, vektlegges det naturlige samspillet i dialogen. Sjekklisten brukes til å kontrollere om informanten har vært innom alle spørsmålene vi ønsker svar på, og presenteres der det tematisk er naturlig. Dersom noen av spørsmålene i sjekklisten ikke skulle være aktuelle for informanten, utelates de. På slutten av intervjuet undersøkes sjekklisten og det som er snakket om, oppsummeres slik at ingen tema er utelatt. Sjekklisten kan brukes mer strukturerende for informanter som trenger det.

2. Introduksjon til informanten

Jeg heter Ragnfrid Nordbø/Ester Marie Espeset. Takk for at du ville delta i undersøkelsen. Jeg er psykologistudent og en av to studenter som sammen med professor Arne Holte gjør en undersøkelse om hvordan det oppleves å få diagnosen Anorexia Nervosa.

Selv om det er forsket og skrevet mye om anoreksi, så vet vi blant annet lite om hvordan det faktisk er å få en slik diagnose og leve med den. Det er derfor vi ber deg om hjelp. Siden du har opplevd å få en slik diagnose, er det du som er ekspertene her. Det finnes ingen riktige eller gale svar, det er du som bestemmer hva som er viktig.

Når jeg spør deg om diagnosen så mener jeg både (1) det å ha fått selve diagnosen anoreksi, dvs. å ha fått et navn på problemene dine, og (2) din opplevelse av å ha disse problemene. Det jeg vil at du skal gjøre er å fortelle meg så detaljert som mulig om dine erfaringer og opplevelser om hvilke følelser du har hatt, og hvilke tanker du har gjort deg.

Nå har jeg allerede brukt ord som diagnosen anoreksi, men jeg lurer på: Er dette ord som du bruker? Hvilket annet ord bruker eventuelt du på dine problemer?

Samtalen kommer til å ta ca. 1-2 timer. Jeg kommer nå til å stille deg noen spørsmål. Det er selvsagt helt frivillig å svare på alle spørsmålene, og du kan trekke deg når som helst. For å få

med meg alt du sier, vil samtalen bli tatt opp på lydbånd. Jeg kommer kanskje også til å notere litt underveis. Alt det her er selvfølgelig konfidensielt materiale. Jeg har taushetsplikt, og det er ingen andre enn prosjektgruppen og jeg som vil få kjennskap til at det er du som har sagt det du forteller. Lydbåndet vil bli visket ut når undersøkelsen er ferdig, senest våren 2003. Når resultatene fra denne undersøkelsen blir utgitt, så vil all informasjon være omskrevet slik at ingen vil kunne vite at det er du har sagt det du forteller.

Før vi fortsetter, er det noe som virker uklart eller du vil spørre om?

Da foreslår jeg at vi starter.

Bakgrunnsopplysninger:

Hvor gammel er du ?

Kjønn:

Hva er din sivilstand?

Jobber eller studerer du?

Først, hvordan var det for deg å få denne henvendelsen, gjorde du deg noen tanker allerede da?

3. Åpne spørsmål/ hovedproblemstilling

- I. Hvordan var det for deg å få diagnosen anorexia nervosa?
- II. Hvordan er det for deg å behandles for anorexia nervosa?
- III. Hvordan er det for deg å leve med anorexia nervosa?
 - a) Hvilken betydning har anorexia nervosa på hvordan du ser på deg selv og problemene dine?
 - b) Hvilken betydning har anorexia nervosa for ditt forhold til andre?
 - c) Hvilken betydning har anorexia nervosa på hvordan du ser på ditt fremtidige liv?

I. Opplevelsen av å få diagnosen anorexia nervosa

- Kan du fortelle meg om når problemene dine startet?
- Når forstod du selv at du hadde diagnosen?
 - Ble du fortalt det av andre? I så fall: Av hvem? Hvordan var det?
- Søkte du hjelp på egen hånd, eller på oppfordring fra andre? I så fall hvem?
- Skjedde det en endring av din opplevelse av problemene dine etter at diagnosen ble stilt?

- Hva er diagnosen anoreksi for deg? (Hvordan vil du beskrive diagnosen?)
- 1. Kan du si noe om hvordan du opplever å ha denne diagnosen?
 - Hva ved diagnosen gjør at den oppleves slik?
- Mener du at diagnosen fanger din hverdag og opplevelse av å ha anoreksi?
- Hvordan var det å akseptere det at du har anoreksi?
 - Når er det lettest og når er det vanskeligst å akseptere diagnosen?
- Ville det ha vært bedre å få en annen diagnose? Hvilken? Hvorfor?
- Kunnskap om anoreksi?
 - Hva visste du om anoreksi før problemene startet? Tror du dette hadde noen innvirkning på din sykdomsutvikling? På hvilken måte?
 - Kjennte du noen andre med diagnosen før du selv fikk den? Hvordan har dette påvirket deg?
 - Kjenner du noen andre som nå har diagnosen? Hvordan er det?
 - Tenker du på diagnosen som vanlig eller utbredt? Hvordan opplever du det?
- Hvilken kunnskap mener du media formidler om anoreksi?
 - Vil du si at dette påvirker det din oppfattelse av deg selv og dine problemer?

II. Opplevelsen av møtet med behandlingsapparatet?

- Hvordan ble du tatt imot av behandlingsapparatet?
- Hvordan har behandlingen hjulpet deg?
- I hvilken grad opplever du at behandlerne har kunnskap om /innsikt i dine problemer?
 - Hva har de kunnskap (innsikt) om?
 - Hva mangler de kunnskap (innsikt) om?
- Er det noe du ønsker var annerledes i behandlingen du har fått?

III. Opplevelsen av å leve med anorexia nervosa

a) Anoreksiens betydning for opplevelsen av deg selv

- Kan du med dine ord beskrive hvordan det er å ha anoreksi?
 - Hva ved anoreksi er vanskelig eller negativt?
 - Er det noe ved anoreksi som er bra eller positivt?
 - Har anoreksi gitt deg noe som du ikke hadde før?
 - Har anoreksi tatt fra deg noe?
- Er det spesielle situasjoner som på grunn av anoreksien er spesielt vanskelig for deg?
 - Hva ved anoreksi utløser det? Kan du gi konkrete eksempler?

- Hvordan er en typisk dag for deg?
 - Er noen dager bedre enn andre?
 - Hva er en god dag?
 - Hva er en dårlig dag?
- Hvilke tanker har du om deg selv?
 - Hva tenker du om deg selv i hverdagen?
 - Når er du fornøyd med deg selv?
 - Når er du ikke fornøyd med deg selv?
 - Hva skjer når du er fornøyd? Hva skjer når du er misfornøyd?
- Har anoreksi betydning for hvordan du tenker om deg selv og hvem du er?
 - Har dette forandret seg etter at du fikk diagnosen?
 - Har diagnosen påvirket ditt selv bilde?
- Hva skulle du ønske at var annerledes?

b) Anoreksiens betydning for ditt forhold til andre?

Andre: De som står deg nær, familie, partner, venner, behandler.

- Hvordan påvirker anoreksi ditt forhold til andre mennesker?
 - Nære venner, familie?
 - Bekjente? Fremmede? (Mannen i gata?)
- Hvilken kunnskap mener du dine nærmeste har om anoreksi? Hvordan påvirker det deg?
- Har forholdet ditt til andre endret seg etter at du utviklet anoreksi? På hvilken måte?
- Forteller du om anoreksien til andre mennesker? Til hvem? Hvordan er det?
- Tror du at andre forstår at du har anoreksi, selv om du ikke sier det? Hvorfor?
- Hvilke tilbakemeldinger / reaksjoner får du fra andre? Hvordan er det for deg?
- Hvilken kunnskap har folk flest om anoreksi? Hvordan påvirker det deg?
- I hvilken grad opplever du at andre forstår deg og din situasjon?
- Hvordan tror du at andre vil beskrive deg som person?
- Hvordan tror du andre vil beskrive dine problemer?
- Er det noe du ville ha endret i måten andre ser på deg?
 - Er det noe du ville ha endret i hvordan andre ser på diagnosen?
 - Hvordan ønsker du at andre skal se på deg?
- Er det noen du opplever er mer opptatt av diagnosen enn andre?
 - I så fall, hvem?

- Hvordan er det for deg?
- Er det noen som utpeker seg i noen retning? I så tilfelle hvem? Hvorfor?

c) Anoreksiens betydning på hvordan du ser på din fremtid

- Hva tenker du om det å bli frisk?
- Hva legger du i ordet frisk?
- Hender det at du ikke ønsker å bli frisk? Eventuelt, når da?
- Er det spesielle situasjoner eller forhold som øker din motivasjon for å bli frisk?
- Er det spesielle situasjoner eller forhold som gjør at du tviler på din egen motivasjon?
- Hva tenker du om fremtiden i dag?
- Har forventningene endret seg over tid? Har du eventuelt tanker om hvorfor?

Avslutning

Jeg har stilt deg en rekke spørsmål rundt det å ha diagnosen anoreksi.

- Hvis du skulle trekke frem noe av det du har fortalt, eventuelt noe annet som du ikke har nevnt, er det noe du synes er særlig viktig å få frem i en undersøkelse på hvordan det er å ha anoreksi?
- Er det noe du tenker er viktig for andre å vite, viktig at leger eller annet helsepersonell er oppmerksomme på og viktig at personer i omgivelsene vet om?
- Er det ellers noen temaer du ikke synes er godt nok dekket eller som mangler?
- Var det noe du synes var mindre viktig av det vi snakket om?
- Var det noe du ikke fikk sagt?
- Hvordan synes du dette intervjuet har vært
- Var det noe du synes var særlig vanskelig å snakke om?

Du har gitt meg mye verdifull informasjon som vi vil bruke i det videre arbeidet med undersøkelsen. Hvis det skulle bli aktuelt, kunne jeg komme tilbake til deg for å få dine kommentarer på det vi skriver? Hvordan er det da best at jeg kontakter deg?

TUSEN TAKK FOR HJELPEN!

APPENDIX 2:

Interviewguide Phase 2

Intervjuguide

Introduksjon

Presentasjon

Jeg heter Ester Marie Espeset. Jeg er ansatt på Nasjonalt Folkehelseinstitutt og arbeider sammen med to andre forskere med et større forskningsprosjekt om pasienters egen erfaring av å leve med og bli behandlet for diagnosen anoreksi. Jeg har arbeidet med prosjektet siden 2000 og har blant annet tidligere gjort en undersøkelse der vi intervjuet kvinner med spiseforstyrrelser.

Det er skrevet og forsket mye på anoreksi. Likevel er det fremdeles vanskelig å forstå sykdommen for folk som ikke selv har hatt den. Det å få mer kunnskap om pasienters erfaring er derfor veldig viktig for at vi skal kunne få en større forståelse av og dermed kunne bedre behandlingstilbudet av alvorlige spiseforstyrrelser. Her er det du som er ekspert og kan fortelle meg noe om hvordan det er å ha anoreksi og hva som er viktig for å forstå de problemene du har. Hensikten med denne undersøkelsen er altså å få mer kunnskap om hvordan vi bedre skal forstå diagnosen anoreksi. Det gjør vi ved å kartlegge ulike forhold knyttet til det å leve med anoreksi, altså hvilke erfaringer pasienter selv har fra å leve med lidelsen. For å gjøre dette, har vi prøvd å dele intervjuene inn i tematiske ulike temaer. Men det er ikke så lett, fordi de fleste temaene overlapper jo hverandre mer eller mindre.

Mitt intervju har en slags hovedoverskrift som heter: "hva er essensen eller kjernen i anoreksi"? Og med det så mener jeg hva er det som egentlig skjer når man utvikler en anoreksi? Hva er "mekanismene" bak sykdommen? Hva er det som opprettholder den? Altså: vil jeg gjerne vite hva du tenker om og hvordan du selv forstår de problemene du har. Jeg har lyst til at vi skal snakke litt om hvordan hverdagen er når man har anoreksi? Hva du er opptatt av? Hvilken innvirkning anoreksien har på livet ditt? Og da tenker jeg spesielt på hvordan ditt forhold til kroppen og følelsesliv.

Nå har jeg sagt mye, og brukt mange ord, men det som er viktig er å si at dette ikke skal være et intervju der jeg stiller spørsmål og du svarer på dem. Men heller en samtale der du deler din

erfaring med meg, og der du prøver å hjelpe meg til å forstå de erfaringene du har. Og det er dine opplevelser som er viktig og det er du som bestemmer hva som er viktig. Jeg vil at du skal fortelle så detaljert som mulig. Og derfor prøver jeg av og til å si at: ”Det må du si mer om” for å få deg til å fortelle mest mulig rundt en opplevelse.

Når jeg snakker nå så har jeg sagt anoreksi. Da mener jeg både det å ha en sykdom eller et problem, men også selve diagnosen, altså det at man får et navn eller en merkelapp på de problemene en har. Før vi går videre vil jeg gjerne høre om dette er ord som du selv bruker eller om du

Intervjuet vil ta ca 2 timer. Jeg kommer til å stille deg noen spørsmål. Det er selvfølgelig helt frivillig å svare på alle spørsmålene. For at jeg skal få med meg alt du sier, vil samtalen bli tatt opp på lydbånd. Jeg vil kanskje også notere litt underveis. Alt som sies er konfidensielt materiale. Etter at intervjuene er skrevet ned, vil det bli anonymisert, og båndet vil deretter slettes. Før vi kan begynne intervjuet ber jeg deg skrive under på noe som kalles informert samtykke og som er din bekreftelse på at du ønsker å delta. Det hører også med å si at undersøkelsen selvfølgelig er helt frivillig.

Noe du lurer på før vi begynner intervjuet...

Forståelse av anoreksi

- Hva tenker du selv om de problemene du har?
- Hvilke ord bruker du for å beskrive det?
- Tenker du at anoreksi er en sykdom?
- Hva mener du at er sentralt for å forstå anoreksi?
- Når er det du føler deg syk? Hva skjer da?
- Når føler du deg eventuelt ikke syk? Hva skjer da?
- Når forstod du selv at du hadde problemer? Husker du hva som gjorde at du forstod det?
Var det noe spesielt som førte frem til erkjennelsen?
- Hva er det som er vanskelig å forstå for andre med de problemene du har?

Kropp

1) Hvordan vil du beskrive forholdet ditt til din egen kropp?

2) Er det sånn at du er opptatt av kroppen din?

På hvilken måte er du opptatt av kroppen din?

Hva er det ved kroppen du er opptatt av? (kroppsdeler, kroppens form, kroppens størrelse).

Når på døgnet vil du si at du er opptatt av kropp? (når du spiser, veier deg, dusjer).

Hva er det som skjer når du blir opptatt av kroppen? Er det noe spesielt du gjør? (veiling, kroppssjekking), noe spesielt du tenker eller føler?

3) Kan du prøve å beskrive hvordan du ser din egen kropp? Hvis det hjelper så kan du prøve å beskrive hva du ser når du ser deg selv i speilet?

Hvilke følelser har du knyttet til kroppen din? (gode følelser, negative følelser?)

Hva tenker du om kroppen din? (fornøyd, misfornøyd?)

4) Hvordan tror du kroppen din ser ut for andre mennesker?

Likt eller annerledes fra hvordan du selv ser den?

Hva er det eventuelt som gjør at du ser den annerledes enn andre?

5) Nå har vi snakket litt om hvordan du opplever kroppens størrelse. Er det noen andre ting ved kroppen enn størrelse du er opptatt av, som ikke trenger å handle om hvordan den ser ut, men hvordan du kjenner den eller opplever den?

6) Er det sånn at opplevelsen av kroppen din (hvordan du kjenner den eller ser den) varierer eller forandrer seg i løpet av en dag eller en uke? Kan du prøve å beskrive den forandringen eller variasjonen?

- Er det noen spesielle situasjoner hvor du opplever kroppen forskjellig?
- Kan du prøve å forklare meg hva som skjer da?
- Hvilke tanker du har?
- Hvilke følelser du har?
- Er det noe spesielt som pleier å skje i forkant? (Sosiale relasjoner, tid på døgnet, situasjoner med krav og press).
- Har du noen tanker om hvorfor opplevelsen av kroppen din endrer seg?
- Hvordan påvirkes din opplevelse av kroppen din når spiser, trener og veier deg?

7) Noen situasjoner som er spesielt vanskelige for deg på grunn av det med kropp? Jeg tenker på situasjoner som er forbundet med nakenhet, det å vise seg naken for andre, intimitet og sex.

Hvordan forholder du deg til kroppen din da?

8) Kan du huske om du alltid har opplevd kroppen din på samme måte? Hvis nei, kan du beskrive hva som har endret seg?

9) Nå har jeg stilt deg mange spørsmål omkring kropp, men det er sikkert mange flere jeg kunne stilt. Er det noe du mener er viktig med ditt forhold til din egen kropp som du vil fortelle om?

Følelsesliv

1) Hvordan vil du beskrive humøret eller sinnsstemningen din? (Stabilt, endrer seg, går opp og ned i løpet av en dag)

2) Jeg lurer på hva det er som påvirker humøret/sinnsstemningen din? For at du lettere skal kunne svare på det, kan du prøve å beskrive en typisk dag i livet ditt, hvordan humøret ditt er, og om det forandrer seg i løpet av den dagen.

- Hvordan er humøret ditt når du våkner om morgenen?
- Hva skal til for at du er i godt humør?
- Hva skal til for at du blir i dårlig humør?
- Forandrer humøret seg i løpet av en dag?
- Hvis humøret forandrer seg i løpet av dagen, klarer du å si noe om hva som fører til den forandringen? (eksempelvis andre menneskers oppførsel, kommentarer fra andre, andre situasjoner, kroppen, vekta, klær)

3) Hvordan forholder du deg til følelsene dine?

- Hvordan er det for deg å legge merke til og innrømme følelsene dine? Jeg lurer hvordan du kan merke disse følelsene?

- Glede
- Irritasjon/sinne
- Fortvilelse/tristhet
- Ømhet/hengivenhet
- Redsel/engstelse/frykt
- Skamfull, sjenert
- Misunnelig/sjalu

- Dårlig samvittighet/Skyldfølelse
- Avsky
- Forakt
- Hvordan er det å skille mellom ulike følelser?
- Hvordan er det for deg når du merker en følelse? Hvordan er det for deg å la følelsen virke på deg? Hva gjør du med følelsene eller hva gjør følelsene med deg?
- Hvordan er det å innrømme følelser?
- Klarer du å vise følelsene dine overfor andre?
- Hvordan er det for deg å sette ord på følelser og fortelle det til andre?

4) Noen ganger er det slik at en gjør ting med følelsene sine for å slippe å kjenne dem. For eksempel kan noen beskrive at de prøver å la være å kjenne på følelsene sine eller prøver å flykte fra dem. Er dette noe du kan kjenne deg igjen i? Kan du gi noen eksempler?

5) Noen mennesker kan beskrive at de har dårlig kontakt med kroppen? At de synes det er vanskelig å kjenne følelsene i kroppen eller lytte til kroppens signaler. Er dette noe du kan kjenne deg igjen i? I hvilke situasjoner opplever du dårlig kontakt med kroppen din?

6) Noen ganger kan mennesker oppleve at de ikke har kontakt med egen kropp. Noen kan til og med si at det føles som om hode og kropp ikke henger sammen. Er det noe du kan kjenne deg igjen i? I så fall vil jeg gjerne at vi skal bruke litt tid på å forstå hva som skjer når du føler at hode og kropp ikke henger sammen. Er det noen spesielle situasjoner du kan oppleve dette? Hvis man føler seg som delt i to kan man nesten føle seg litt fremmed for seg selv. Man blir liksom litt distansert. Er det noe du kan kjenne deg igjen i?

7) Nå har jeg stilt deg noen spørsmål som handler om kropp og følelser. Gjør du deg noen tanker etter at vi har snakket om dette? Synes du vi har snakket om noe som er viktig for deg? Er det noe vi ikke har snakket om som du mener er viktig for å forstå hvordan du forholder deg til egen kropp og følelser?

